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97 Chesnut street, St. Louis, Mo.

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VALLEY FARMER,
99 Third street, Louisville, Ky.

[Written for the Valley Farmer.]

HINTS FOR THE MONTH.

See that the crops are all gathered and properly secured. Most of this work has perhaps already been done. Many farmers are in the habit of allowing their corn to remain in the field, either uncut or in the shock until it is wanted for use during the winter. This is a wasteful practice. Much of it is injured by exposure to the weather, getting wet, moldy and rotten. Much of it is destroyed by mice, rats, and animals of larger size, as well as birds. It should all be husked and put in the barn or crib during this month if possible. Haul in your corn stalks, also, and put them under cover or in ricks convenient for feeding out as required.

Potatoes should have been dug before this.—The best place to keep them is in a good dry cellar, which can be kept sufficiently warm to prevent them from freezing, and susceptible of being well ventilated when circumstances will

admit. Do not put them in too large bins or piles, they need some air, and you can the more easily overhaul them should they begin to rot. If you bury them in the ground, choose a dry, porous soil, take off a few inches of the top soil, put about 30 or 40 bushels in a place, pile them up in as perfect a cone as possible, cover about three inches thick with straw—straight rye straw is the best—then cover with three or four inches of earth. The first freeze that comes, so that nearly all the earth covering is frozen, put on another layer of straw two or three inches thick, and then another covering of six inches of earth. Other modes are in use, but this is believed to be the best. Other root crops, and apples, may be put up in the same manner—either with or without the intermediate layer of straw. Covering the whole with corn stalks, closely bound at the top, is a good practice—it prevents the rains from washing off the earth.

It is important that cellars be well cleaned before putting in winter stores; and if white-washed, so much the better. When there are warm days that will admit of it, they should be opened and thoroughly ventilated. All decaying matters, vegetable or other, should be looked for frequently and removed. Damp, illy-ventilated cellars are great nuisances, much worse often than no cellar at all. They become filled with bad air and noxious gases, which are more or less absorbed by the various edibles within, making them to a degree unwholesome and more liable to decay. If the cellar is under the house, these gases permeate to the living rooms above, injuring the health of the occupants, particularly children.

It is the duty of every farmer, on the score of health, comfort, and economy, to provide fresh

fruits for his family throughout the entire year. This is easily done, provided, when he has obtained the bearing trees, he will take sufficient care in preserving his winter fruit. Winter apples and pears should be left on the trees until there is danger of sufficient frost to injure them, or at least until active vegetation has ceased.—Then they should all be picked by hand with the stems on, and laid carefully into broad shallow baskets, the bottom of which may be covered with moss or other soft substance, and similar substance may be placed between layers. In short, they must be so handled from the time they are picked till they are deposited in their final winter quarters as to avoid any bruising whatever. The slightest bruise is a defect which will generally lead to the early decay of the fruit. They should be conveyed to a cool, dry room, and laid in piles not more than three or four thick, where they may remain two weeks, during which time they will have undergone their first sweat, as it is sometimes called, or will have parted with considerable moisture and be quite dry. They should be picked in dry weather and in the dry part of the day. It is a bad plan to mix varieties, especially those ripening at different periods. Before finally putting away, carefully assort them. All the bruised or unsound ones should be put by themselves for early use, and only the perfectly sound fruit put away for long keeping. A few decaying apples in a barrel or pile, will affect the flavor of the whole and cause their earlier decay.

Many fruit growers are in the habit of wrapping each apple in soft, dry paper, and placing them carefully in regular layers in clean new barrels, and heading them up—the practice is a good one. The dry paper absorbs a good deal of moisture, and helps to keep the fruit in good condition. When packed, each barrel should be labelled so that you may know where to find your earliest ripening varieties. They should then be placed in the cellar or fruit room, either of which should be dry, cool, dark, and of equal temperature. Cellars for fruit and other purposes, particularly outside ones—that is, those not under the dwelling, and their construction, will form the subject of another article.

While on the subject of fruit, it is important to remind those who have young fruit trees, of the necessity of guarding them in season against being barked by rabbits during the winter.—Wrapping the stem to the height of a foot and a half with old newspaper or rags is thought to be

the best. A wash of lime and sulphur, or lime and fresh cow dung is good, but requires a re-application if washed off by rain.

See that your fattening hogs have comfortable shelter from the cold storms, and that their feeding troughs and pens are kept clean and in good order. If you have not provided for cooking or steaming their food, it will pay you well to do so. If you have any of the Razor-back or Land-shark breeds, kill every one of them—they are a curse to you. They eat more annually than their carcasses are ever worth, and then cannot be made half fit to eat as compared with good, easily-fattening breeds.

If you are wise, you will take care to put all your winter stock into good condition before winter weather fairly sets in. It will be much easier and cheaper to keep them in that condition through the winter, than it will be to keep them alive after they are once reduced to gaunt, shivering leanness. It is particularly necessary always to keep young stock in a constantly growing condition, unless indeed you are content with rearing inferior animals of comparatively little value for any purpose.

Provide suitable shelter and winter protection for all stock, if possible. You will soon save the cost thereof by the less amount of food required, and by the better condition and enhanced value of your stock.

Before winter feeding commences, scrape up and haul out all the manure you can find, and spread it on fields you intend to cultivate next season. Fall is generally the best time to apply barn-yard manure.

L. D. MORSE.

[Written for the Valley Farmer.]

LIME ON SOILS.

It is unfortunate that some countries are without lime. It is deplorable that, where it abounds, so little is used by the farmer. It is also remarkable how much ignorance prevails among farmers on the use of lime. Its application to soils, it is true, is not fully understood; but enough is known to make its use highly beneficial. One thing alone is enough to convince us of this—that all calcareous soils are fertile, more or less. I have seen limestone soils like oases, in a poor country—rich limestone elevations with poor valleys and poorer general soil. And yet these are inferior to the artificial application, where lime is slaked and applied in the proper quantities.

Among the various properties of lime, certain valuable ones are known to the farmer.

1. It mellows the soil.

2. It deprives soil of its acid, and unhealthy gases.
3. It gives health and quality to vegetation.
4. It is hurtful to insects and noxious weeds.
5. It hastens the maturity of the crop.
6. It is an excellent fertilizer.

These are clearly defined points—and it must be owned, they are qualities not undesirable.—There are more things about lime; but these are among the best known and more prominent. Now, with a little thought—knowing these facts—any farmer, even if he has never used lime, or read the first word upon its application, can apply it with benefit. Of course, a man must think or he can never do anything right, much less chemical tests, which farming in a great measure is.

We should have added a seventh property, and said that lime is lasting. It will extend its benefit through half a dozen years, whereas, common manures last but a year or two, unless very plentifully applied—for vegetation can only take its needed quantity from the soil. The rest remains over (safely) to another year, or any number of years, till drawn, by vegetation, from the soil. Hence, once in several years, according to the amount, it should be applied.

Soil, where wheat is sown in the fall, should receive a coat of lime, and be thoroughly mixed with the top-soil by a light harrow. The benefit will be seen in the crop the next season. But if applied in the spring, for any grain, little good will be derived that season. Lime is slow in its effects, especially at first.

Where no lime has been used for many years, or never, as in too many cases, and where there is little or no lime in the soil naturally—from 100 to 200 bushels to the acre are used. The higher figure is best, as it extends the time farther when lime should be used again, and adds greater benefits otherwise.

It is also thought lime adds greater strength to the stalk, thus obviating measurably a great evil, the lodging of grain, which brings us to the eighth prominent point. Let us recapitulate and see what we get by liming a field, say in the fall—or spring, or any time rather than not all: in fact it makes but little difference. The fall is thought to be the most advisable, and it probably is, as the winter gives it a start, for frost acts upon lime as well as upon soil.

Take an old, unlimed, neglected field. Scatter your (slaked) lime profusely. Harrow it in. For the first year or two, plow lightly—to keep the lime in reach of the atmosphere. The result will be, your soil will work more easily—

and this is a desirable thing, to see your soil mellow, and yielding to the tread—for the lime opens the pores and lets in the sun and air. You are less in fear of insects than before. You find to your surprise a cleaner soil, brighter straw, and the grass greener and tenderer, and sought with more avidity by the herd: they always prefer limestone soils. There is an earlier green in the spring—and your crop is cut and harvested when your neighbor's is ripening. Yours stood erect, and was neatly harvested; your neighbor's is lodged, and suffers in straw and berry. Your grain is brighter, and weighs several pounds more to the bushel, consequently commands a better price.

When drouth sets in, you have less fear for your lot. There are no great cracks—or less of them—and these become filled, measurably, with mellow soil. Your soil may be wet; in such a case it must be more or less malarious, sour: it is absolutely so no more. The lime takes up these noisome gases and devotes them to use. Lime does all this, and much more. Do you wonder, then, that farmers—scientific farmers—make so much ado about lime. Guano is useful; so is muck. But lime is the panacea for the evils of farming.

It is often wondered why some particular fields or farms show earlier grass than others—a beautiful green, while all around is comparatively barren. We often see this. I once heard an old farmer of sixty say, "I have had my eye on the Coapman farm ever since I was thirteen years old. In the spring, it mattered not if I traveled a hundred miles south, or any where else where they had noted farms, I always found the earliest grass on this farm: it was green when others didn't have a spear."—He bought the farm. Years have intervened, and spring finds his fields no greener than others. The reason is, the farm has lost its lime which its former owner had supplied. It is starved and over-running with weeds.

Manure has its uses. But, unless charged with lime, it fails in many of the things which we have mentioned, which belong to lime. And these things, as we have seen, are important.—What aids it furnishes to the farmer! All he needs to do, is to apply the lime once in five or six years, and let it take care of itself. Its lasting quality is not one of its least. Slake it thoroughly, and immediately apply it. If you plow deep, more lime is necessary. A deep, rich, well-limed soil, is a thing greatly to be desired. A whole district treated in this way,

would be a boon indeed. It would be healthy, productive, and pleasant to contemplate—

"Sweet fields of living green."

There is another thing. We all know that lime has an affinity for acid. Throw it into wells, or cisterns, and it will purify the water. It will soften hard water. A little quick lime is much better than ashes to do this. Well; on this same principle it will destroy acidulous plants. Hence, it is death on sorrel. But it is an enemy to many weeds, while I know not a useful plant that it will hurt.

There is still another point, distinct, about lime: it rots manure. When clover is plowed under (which is not done half enough), lime aids its decomposition, and the effect will be seen to be wonderful. A little more labor, judiciously applied, is what is needed; and it is just this that advances farming, which is fast taking its rank as the first and purest of sciences.

Machinery will hasten this; invention aids it; but lime is the grand means, and in connection with manure, the *sine qua non* of farming. Use it, then, without stint. Two hundred bushels are better than one, and three hundred better than two. The more you apply, the deeper let your plow run. The more you apply, the longer it will last, the more thorough work it will make. A soil thoroughly and deeply limed, is almost inexhaustible. Rain and drouth have little effect on it. It is both weeder and drainer; enriches and purifies. It does not dig a drain for you; but it opens the pores, which is next to it; for it has action.—There is life in lime; it is a good plant-fellow. It even restrains redundancy; and makes up in quality what it withholds in quantity—I mean quality of grain, and quantity of stalk. There will be less bran and more flour from wheat grown on soils charged with lime. All these good qualities, lime possesses; and more. They may not all be strikingly manifest; and some of them even may be doubted: but they are there, and always doing their work—for it is their nature to do so; it is the nature of lime to act only in such ways; and so it will act, though we do not always see it, and circumstances may sometimes thwart for awhile. Let us repose confidence in this efficient agent, and it will soon be throned in our affections. Affection, we know, is a strong inducement to action. Success a still stronger. Could we but get the indolent, old-fashioned farmer, out of his old tracks, and get a spark of perseverance in him! But his neighbors must do this by

their examples. Example is better sometimes than books: the two together are best of all; and they are both exceeding great lovers of the subject of our article, lime. F. G.

[Written for the Valley Farmer.]

PHILOSOPHY FOR FARMERS.

BY DR. JOHN T. HODGEN, OF ST. LOUIS.

[Concluded.]

It has been determined that the red ray of light, is the heating ray—yellow, the luminous, and violet the chemical ray; and that the other four are but tints, formed by the unequal blending of the three first mentioned.

The rays of light vary so far in some of their qualities as to be easily separated—as easily as grain may be separated from the chaff; and by processes not varying greatly from those of winnowing and screening.

We pour a quantity of grain and chaff and straw on a screen; the grain passes through and the straw is retained and thrown back: Now, similar to this process, white light, composed of the seven tints, may be poured upon variously colored objects, and certain tints are thrown back, whilst others are lost, or at least disappear in the object.

Again, we may pour a quantity of grain and chaff from a measure, in the wind at considerable height—the chaff, being lighter than the grain, will be carried further from the line in which it entered the current of air, whilst the grain will pass through the air, more nearly in a straight line, to the earth.

Just so with light, if poured through a prism: some rays are more easily diverted from direct lines than others; and thus they fall upon a screen at different points.

Now, when we see an object of a certain color, we conclude that all the other rays, besides the one reflected, are absorbed—thus a red object absorbs orange, yellow, green, blue, &c.

The figures 458, followed by twelve cyphers thus, 458,000,000,000,000, gives the number of vibrations per second which produce the sensation on the eye, of red light; and 727,000,000,000,000, expresses the number of vibrations per second of violet light.

Sound, in the same manner, is accompanied or produced by vibrations; and if we make a certain sound which is made up of the proper number of vibrations in a given time—a chair, a bowl, a looking-glass, or any other object (that if struck, would vibrate with exactly the same rapidity) may respond by uttering the same tone.

Just so with plants in regard to light. If we

admit only a certain ray of light to fall upon a plant—the particles of which are capable of vibrating in an unequal ratio—we will not observe the peculiar tint of the plant.

But if we pour on to a plant a color, the vibrations of which correspond to the capability of vibration in the plant, then its response will be distinctly recognized by the eye. Thus it is that plants dance to the music of the sunlight, and are ever merry in its life-giving presence.

Now, plants do not store up carbon except under the influence of light; and their leaves reflect green—a compound tint—the remaining rays are therefore absorbed.

In proportion to the amount of light lost or absorbed during the existence of a plant, will be its growth, or the amount of woody fibre formed.

Now, the amount of light and heat given off during the combustion of a plant, is equal exactly to the amount of woody fibre; so the amount of light and heat developed during the combustion of a plant, is equal to the amount lost in its growth. So that, although light may have been streaming down from the sun for unnumbered ages, none of its force is lost, but all is returned in the decomposition of the plants and animals developed under its influence. For decay is only a slow burning, a gradual combustion, by which not only the chemical elements are restored to their original sources, (earth, air, and water,) but the light and heat—intangible, yet all-powerful agents in development—are also given back to the fountains from which they originally sprang.

We might be led to suppose, from the many beautiful exhibitions of light, that the Being who has the happiness, as well as the lives of all creatures at his command, had parted the seven ingredients of the sunlight in forming the arching bow of the storm god; and forked his lurid shaft, and placed them both as transient, panoramic pictures on a dark background of coursing vapor, alone to delight the eyes of his intelligent creatures.

One might suppose from the elegant assemblage of words that clothe the immortal offspring of the poet's mind, as he speaks of the dancing mote, so radiant in the sun's light—the gorgeous tapestry of the sky—the eternal verdure of that sunny clime, that belts the earth—the thousand radiant things instinct with life (the flowers, the fruits, the birds, the insects, the beast of the field, and the fish of the ocean—radiant, all-beautiful from reflected light): that the light they reflect only has power to charm the sense of vision—to intoxicate

the brain with a flood of brightness, and thus secure the adoration of God's creatures.

But, no! whilst God paints with a pencil of sunlight all that is bright and beautiful to look upon, He, with that same magic touch, forces into life, and health, and vigor, the offspring of the plain, the wood, and the meadow.

Hog Killing—Hints to Housewives.

As the season of hog killing is approaching, we re-publish the excellent Hints from Hettie Hayfield to Housewives on this subject. To young or inexperienced wives, this article is worth much more than a year's subscription to this journal.

Before hog killing, you should have your meat house and store room in perfect order, and every implement and vessel requisite, ready for use. There should be on hand a sufficient supply of salt, saltpetre, ground cayenne pepper, sage, spices, &c. To have them to hunt up, clean, and prepare, is a great back-set to work. Being prepared in your department, I take it for granted that your paragon of a husband has had his pork bred and fed in the most approved style. That during the slaughter a hand has been detailed to look carefully over the heads and feet after the animal has passed off the platform, and after putting them in perfect order, has washed the outside carefully. That a second person, armed and equipped with an abundance of clean water and towels, has followed the opener and washed out the inside until a search warrant could find no trace of the murder.

CUTTING OUT PORK.

This work belongs to the male division of the house, and the master, or some well-trained old servant, will do it up without your ever thinking of it, probably. We will, however, give a few brief hints on this branch of the business.—Have the hog laid on his back. Clean the carcass of the leaf fat. Take off the feet at the ankle joints. Cut the head off close to the shoulders; separate the jawl from the skull, and open the upper part lengthways on the underside, so as to remove the brains fully. Remove the backbone in its whole length, and with a sharp knife cut off the skin, taking all but about a half inch of fat off the spinal column. The middling or sides is now cut from between the quarters, leaving the shoulder square shaped, and the ham pointed, or which may be rounded to suit you. The ribs are next removed partially or entirely from the sides. The fat trimmings from the hams and flabby parts of the sides, are rendered up with the backbone strip. The sausage meat is cut from between the leaf fat and the ribs; any other lean pieces are used for the same purpose. The thick part of the backbone being now cut from the tapering, bony end, you can proceed to

SALTING.

When your meat is to be pickled, it should

be heavily sprinkled with salt, and drain for 24 hours. When it is to be prepared with dry salt, mix one teaspoonful of pulverized saltpetre to one gallon of salt, and keep it warm beside you. Cut off a hog's ear, and with it rub every piece of meat with the salt on the skin side until it is moist, then lay it down and rub and cover the flesh part entirely with salt. Pack hams upon hams, and sides upon sides, &c., for convenience in getting them to hang up at different times, as they will not all be ready at once. It is likewise best to put the large and small pieces in different divisions. The weather has so much to do with the time that meat requires to take salt, that no time can be safely specified. After three weeks fry a piece from the thickest part of a medium sized ham—if salt enough, all pieces small and of the same size are ready for smoking, and the larger ones can wait a few days. The jowl and chime are salted in the same way for smoking. The heads after soaking a day and draining well, are salted less heavily and used fresh. The backbones and spareribs are just sufficiently salted to keep—the last, if the weather is freezing, may be kept quite fresh. The feet may be packed away in salt, if not to be immediately used, and will prove almost as good at any period of the year as when first killed—they are kept thus much better than in pickle, though ribs (when the weather makes much salt necessary) keep sweeter in pickle. Many persons turn over and rub their pork once in a week while it is in salt. We have never practiced it, nor ever lost a joint. And now, having trespassed thus far on the gentlemen's province, we may as well say, that when the pork is ready to hang, the raw side should be well sprinkled with cayenne—about the bones especially a good supply should be laid on. The hams should be hung highest, because there they are least liable to the attacks of insects. A fire-place on the outside, communicating with a smoke flue, is preferable for a meat house to any internal arrangement, because it does not heat the room—which, by the way, is best if lofty, cool, and dark.

We give a receipt for pickle for pork, and the English method of curing bacon, and then retrace our steps clear back to the slaughter house, as possibly you may have to direct some novice there.

PICKLE.

One gallon of water, one and a half pounds of salt, one-half pound of sugar, or a half pint of molasses, one-half oz. of saltpetre, and one-half oz. of potash (often omitted). Boil, and skim thoroughly, and pour over the meat perfectly cold. It must remain a month, if for bacon, and if to keep pork all the year, should be boiled over two or three times in the warm months, with an additional cup of salt and sugar.

ENGLISH BACON.

So soon as the meat comes from the butcher's hands, rub thoroughly and fill every crevice with fine salt. Next day scrape off the salt not absorbed, cleanse out the vessel, salt the pork as the day before; repeat this three days. The fourth day use pulverized saltpetre mixed with

a handful of common salt ($\frac{1}{4}$ lb. of saltpetre to 70 lbs. of meat). Then mix 1 lb. of coarse brown sugar and 1 pint of common molasses, and pour over the saltpetre; repeat this four times a day, for three days, and afterwards twice a day for a month. Then smoke it with maple or hickory, or clean corn cobs.

And now to begin with the beginning of our own proper womanly labor. There should be ready an abundant supply of clean hot and cold water, tubs, buckets, cloths, and so on. A long, stout table for the ridders to stand by, and a tray in which to receive the entrails as they fall from the cavity of the animal's body. The opener should hang the livers, &c. on a pole, to cool for purposes hereafter mentioned. The ridders should proceed as quickly as possible to their business; it is easier done while the intestines are warm. The melts and sweet breads are cut off and thrown into some convenient vessel; then clear the maw of fat; next strip the intestines, being careful not to cut them, and so soil the grease. The thin, gauzy parts, called the veils, should be thrown together in one vessel of cold water. The capes into another, and the strippings into a third. The maws and large intestines should be opened, emptied, washed clean, and put to soak, to be afterwards used for chitterlings or soap grease. The small intestines are saved and cleansed for stuffing sausages. Close your day's labor by having your fat washed again and put in fresh water to soak; do the same office for your sausage skins and chitterlings.

Your first care after this is the lard. Render up the gut-fat first; having washed it clean, put it into your kettles, separated as the day before, because, being of unequal bulk, it will render up unequally—or else cut up the thick parts very small. You may use a brisk fire until the water is out nearly. When the cracklins are brown and crumble easily, or when the lard will sputter when water is dropped in, it is done. Strain it off into a kettle, and when cool put it in what vessel you choose—hot lard will melt tin, or leak through the best wooden vessels. Leaf lard should be so handled as not to require washing, as water increases the chances of its spoiling. It should be rendered up slower than gut-fat, as it is easier scorched. Always put a ladle of melted lard in the bottom of your kettle instead of water. Cut up your leaf lard into thin pieces, and render it to itself. The strip which comes off the back bone, and other trimmings, should be skinned and cut up small; they make good lard, but render up slowly.—The practice of putting ley in lard, which begins to prevail, bleaches, but impairs its quality. When you have finished your lard, throw all your skins, and the fat from around the kidneys, which is usually wormy, into a kettle, and render it up as dirty grease. Subject your cracknels to the strongest available pressure; a patent cider press answers well. Save your cracknels carefully. They shorten a favorite corn bread, make the best of soap grease, and are a remunerating treat to your poultry.

SAUSAGES.

Wash your sausage meat in tepid water, but

do not soak it; see that it is free from bone; gristle, sinews, &c. Cut it up in small pieces; to 3 lbs. of lean meat, allow 1 lb of the leaf fat, chop or grind it very fine. Mix in this quantity, 3 ozs. of salt, $\frac{1}{2}$ an oz. of pepper, and two tablespoons of powdered sage. When well mixed, cook one and try it; it is easy to add seasoning, therefore be cautious in using it.—Your sausage will become more salt as it dries. Add any spice you like.

Bologna Sausage, is made by using one-third of beef, seasoning more strongly, and boiling after stuffing, before drying.

FEET.

Under another head, we have said that we consider it best to salt down the feet, instead of pickling. Previous to salting, they should be carefully examined, the hoofs taken off, not a hair left; be scalded, scraped, and soaked until perfectly white. If wanted for immediate use, they will be ready for boiling after laying a night in salt water. Many persons boil the feet and ears, and keep them in cold spiced vinegar, ready to use cold or to fry; this is termed *souse*. Others, boil the heads and feet until they can be freed from bones, and mash to a pulp; this is seasoned with salt, pepper, and spices, moulded, and kept in vinegar, and termed *pork cheese*.

SAUSAGE SKINS,

Are prepared by repeated soakings and washings. Then, being turned, they are scraped free from the slimy coating, until, when blown up, they are perfectly transparent. They are again soaked in salt water, several days—changing it every day—and are then filled with sausage meat by some of the various implements devised for that purpose.

BLACK PUDDINGS

Are made by stirring corn meal into the fresh blood of hogs. It is seasoned with salt, pepper, and spices; stuffed and used as sausages.

Chitterlings, are made by cleaning the maw and large intestines of the hog. Quicklime will soon enable you to rid them of the slimy coat. Having soaked and washed them until white and inodorous, you may keep and use them as you would beef tripe. The livers, kidneys, &c. may be all boiled well; with sufficient salt to keep, and a strong seasoning of pepper, and kept for your fowls all winter. The livers, however, melts, suet, heads, &c. are esteemed table luxuries, and are kept by sprinkling slightly with salt.

The maws, and larger intestines, with any other fat parts, should be thrown into a kettle of weak lye, and boiled until the grease from them rises to the surface. This grease is useful for soap, wool, or farm implements.

Lastly, the hair of the hog should be saved for mortar, or, with proper preparation, makes a good mattress, or, with the bones, may be sent to the compost heap.

Attend to keeping fences in good repair, and to thoroughly cleansing and whitewashing granaries and poultry houses.

[Written for the Valley Farmer.]

FRESH EGGS THE YEAR ROUND.

There is poetry on the dung-hill as well as in the meadow or hearth-stone. We all remember the cricket in the old-fashioned fire-place: it is a touching little thought, going back far into childhood. There also are the cackling hens and chanticleer of boyhood. The cricket now is mainly confined to the field; but the cock struts as proudly as ever on his favorite dung-hill. Eggs are still hunted for, and obtained—fresh; but only in the country, and then, alas! not always.

Fresh eggs! It is not necessary to dilate here, or poetize further, on the subject—a trick of ours. We will say this much—and we can say it with authority—that fresh eggs may be had at all times, and with little trouble. Is not that an item in the sum of life's experience? We will not eat a spoiled egg; and all but fresh eggs we consider spoiled: old eggs are not fit to eat; they are like old butter.

But how shall we obtain fresh eggs? Hens, it is said, don't pay; many have tried it, and these discourage others. But some have tried it, who continue the practice of raising their own eggs, and sell largely. These certainly must find it profitable, for a man does not, knowingly, throw away his money. We have seen the process tried, and fail; and we have seen it tried, and succeed. It is precisely in this as in other things: in making butter for instance, or coffee, or raising stock. If properly conducted, it will pay; otherwise it would soon cease to be practiced.

To have fresh eggs the year round, and without loss to the producer, must be a consummation devoutly to be wished. It is an easy matter with a little care.

Take one or two dozen of hens, (young hens, and of the same breed, are best,) the number agreeing with the size of the family. Let your building—a rough shanty will do—be dry and airy. Hens, as well as men, require fresh air, and dread moisture. They also suffer from cold—so their quarters in winter should be warm; but always dry, and kept clean. It should be often cleaned and sprinkled with lime; and it would benefit it to whitewash the inside. Eight feet by five, or smaller, will do. The roost poles should be three by four (joist), placed along the back part of the building, with a poop in the centre of each; about three feet from the floor, and half that distance apart. Place a board for the hens to walk up.

As to feeding, give them almost anything.—

They will thrive upon variety. They should be fed three times a day, and regularly. Indian meal made into dough and slightly peppered, is excellent to make them lay; with a little meat every other day; and raw onions once a week, and raw potatoes chopped up. Potatoes and onions should not be neglected. But corn is the great reliance. Let them have access to pure water. Gravel, bits of plastering, and particularly oyster-shells pounded fine, are indispensable to laying.

Make your hens happy and contented. This is a great point. Comfortable quarters, enough to eat (just enough and no more), with materials in reach for egg-shells (gravel, pounded oyster-shells, &c.)—these are the main things.—But the minutiae must not be forgotten. A happy hen will lay; and a happy hen is one that lacks for nothing. The lime should be slacked. It keeps away vermin and disease.—Of course an aperture must be left for the hens to pass in and out. They should be as little molested as possible—never frightened nor watched. Study to make them a happy family, and they will make you happy in return. And do not be discouraged if at first you are not remunerated for your outlay. They will soon take to their new life. But you must attend to them: they are sensitive towards neglect.

If you have no relish for the thing, you will not be apt to succeed—you will not take the proper care. There is not the sympathy between you and your colony, which is appreciated at once and acted upon. There is philosophy in the treatment of hens, as well as in anything else. There is but one fact about everything, and that must be possessed. The fact about hens is, mostly, good treatment—not in food merely, but in everything. There may be an abundance of food, and yet the hens suffer in other respects. These must be remedied. A warm, ventilated building (not heated—avoid all extremes), with windows for light; large enough, and undisturbed; quiet, save by the singing or cackling of hens; kept clean, with slacked lime kept on the floor; and pure water always in reach and ready of access; and regularly fed three times a day with what food will be eaten, and no more:—these are the principal things that form the good treatment of hens, and, with the minutiae added, will make them lay. Once fully establish your system, and it will be easy afterward.

HOW TO CURE HAMS.—When the ham is salted, place the shank down, and always keep it

in the same position while salting and smoking. By this method the juices or moisture of the flesh are retained. Hams so cured are much better and moister and will keep any reasonable length of time.

FALL BARLEY.

ED. VALLEY FARMER: Permit me, through the columns of your valuable journal, to offer a few remarks on the above subject:

It has been a matter of surprise to me, why farmers do not raise more barley. It is more profitable than wheat, being nearly thrice as productive, and more productive than oats or rye. Its market price ranges higher than oats, and as high as rye; and the profit per acre over wheat, is from three to eight dollars—and merely as an article of feed it is more profitable than oats. It is better food for horses than corn, not being of such a heating nature, and they will do one-half more work than when fed on corn. It is more nutritious than oats; and when ground and fed to horses and cattle, nothing excels it; and as feed for hogs, it is better than oats or rye—they will fatten on it sooner.

Barley straw is far preferable to wheat straw as winter feed for cattle; and, as far as my experience goes, I prefer it to corn fodder. Cattle well fed on barley straw, will fatten, when they will only keep in living order on wheat straw.

Barley straw, to make good feed, should be kept housed, as it is easily damaged, in which state cattle will not eat it.

Another strong argument in favor of raising barley, is, that it gives a farmer a chance for a rotation of crops. Wheat, sown after barley, produces a better crop—barley being an early crop (at least two or three weeks earlier than wheat) it gives the weeds a chance to grow, which, when turned under, make a fine coat of manure.

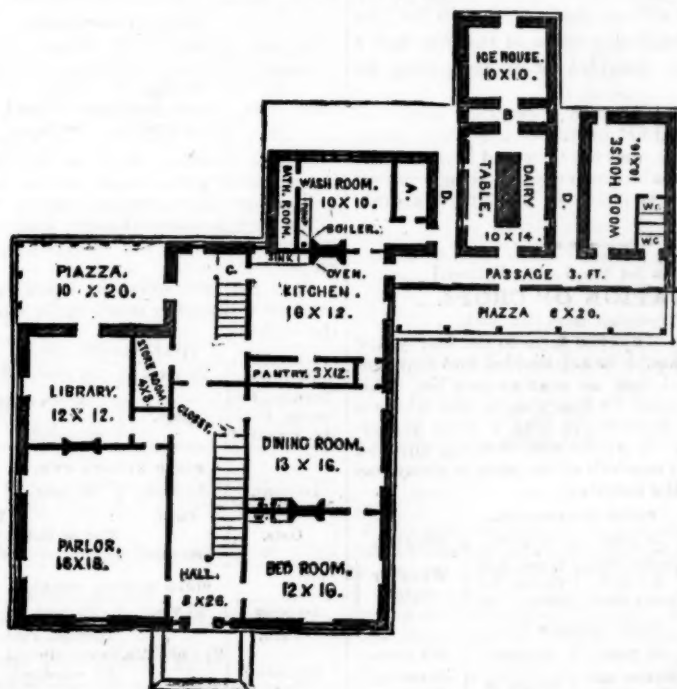
FRANK LEE.

Freedom's Home, Ky., Sep. 18, 1861.

A PERFECT RAT DRIVER.—Chloride of lime has frequently proved a sure thing to drive rats away from any place infested with them. An ounce of it scattered in a place where they come to feed, or wrapped in a piece of muslin and put in their holes, where it acquires dampness, produces a gas that is not offensive to man, but is to the rats. If chloride of lime is moistened with muriatic acid, and placed in a drain, vault, or cellar, and closed from the air a little while, the rats will depart, because it will be death to remain. This is also a good disinfectant, and will for a time cure the effluvia of a dead rat.—One application of dry chloride of lime to rat holes, has driven them away for a year, when a renewal started them again.



A FARM COTTAGE.



The above design for a Farm Cottage was presented by Mrs. Sanford Howard, of Albany, to the New York State Agricultural Society. Much taste and judgment are here evinced in the arrangement of the several apartments, combin-

ing neatness and convenience with real utility. The style, perhaps, may not be the best adapted to the views and limited means of some of our friends, but to those who have the ability, as well as the disposition to rear a beautiful

Cottage Home, we consider it peculiarly appropriate.

Fig. 1, is a perspective view of the dwelling, designed to face South, with an elevation of thirteen feet from the sills to the roof. To give chambers of the size designated, the apex of the roof should not be less than twenty-two or twenty-three feet above the sills, leaving a sufficient space for air between the finish of the chambers and the roof, to prevent the rooms from becoming heated in summer.

Fig. 2, is the ground plan, in the construction of which, Mrs. H. observes: "It has been my object to combine utility and beauty, as far as practicable, with the labor-saving principle.—In the arrangement of the kitchen and dairy, regard has been had to securing the proper requisites for these important departments, with the greatest degree of convenience. In constructing a Dairy, such an excavation should be made, as will leave the floor two or three feet below the surrounding surface. The sides should be plastered, and the windows made so as to shut out the air in moist and windy weather. It will be observed, that in the plan herewith submitted, a space of two feet and a half has been provided for on both sides the Dairy.

The expense of such a dwelling might be varied from \$1500 to \$3000, according to the style and finish, and the taste and ability of the owner; the main conveniences being retained at the lowest estimate, by omitting the ornamental front."

[Written for the Valley Farmer.]

ROTATION OF CROPS.

[Concluded from Oct. No.]

In order to adapt the farm to the four years' rotation, it should be sub-divided into four portions of equal size, as near as may be. This rotation is suited for heavy soils, and where it is considered desirable to raise a large proportion of grain. It will be seen from the annexed diagram, that one-half of the farm is always occupied with the cereals:

| FIELD NUMBER ONE. | | | |
|-------------------------------------|-------------------------------------|-----------------------------------|-------------------------------------|
| 1st year. | 2d year. | 3d year. | 4th year. |
| Potatoes, Turnips, Cabbage, &c. | Barley, Oats, &c. with Grass Seeds. | Grass and Clover for pasture, &c. | Wheat or Oats. |
| FIELD NUMBER TWO. | | | |
| 1st year. | 2d year. | 3d year. | 4th year. |
| Barley, Oats, &c. with Grass Seeds. | Grass and Clover for pasture, &c. | Wheat or Oats. | Potatoes, Turnips, Cabbage, &c. |
| FIELD NUMBER THREE. | | | |
| 1st year. | 2d year. | 3d year. | 4th year. |
| Grass and Clover for pasture, &c. | Wheat or Oats. | Potatoes, Turnips, Cabbage, &c. | Barley, Oats, &c. with Grass Seeds. |

| FIELD NUMBER FOUR. | | | |
|--------------------|---------------------------------|-------------------------------------|-----------------------------------|
| 1st year. | 2d year. | 3d year. | 4th year. |
| Wheat or Oats. | Potatoes, Turnips, Cabbage, &c. | Barley, Oats, &c. with Grass Seeds. | Grass and Clover for pasture, &c. |

Or on very stiff clay soils the following rotation is preferable. It will be borne in mind that corn or tobacco may be substituted for a portion of the cereals—or, if manured, for a part of the green crops:

| FIELD NUMBER ONE. | | | |
|---|------------------------------------|--------------------------------|--------------------------|
| 1st year. | 2d year. | 3d year. | 4th year. |
| Potatoes, Turnips, Beans, Peas, &c. manured | Wheat and Grass, Clover and Seeds. | Grass and Clover, for feeding. | Grain, as Rye, Oats, &c. |

| FIELD NUMBER TWO. | | | |
|------------------------------------|--------------------------------|--------------------------|---|
| 1st year. | 2d year. | 3d year. | 4th year. |
| Wheat and Grass, and Clover Seeds. | Grass and Clover, for feeding. | Grain, as Rye, Oats, &c. | Potatoes, Turnips, Beans, Peas, &c. manured |

| FIELD NUMBER THREE. | | | |
|--------------------------------|--------------------------|---|------------------------------------|
| 1st year. | 2d year. | 3d year. | 4th year. |
| Grass and Clover, for feeding. | Grain, as Rye, Oats, &c. | Potatoes, Turnips, Beans, Peas, &c. manured | Wheat and Grass, and Clover Seeds. |

| FIELD NUMBER FOUR. | | | |
|--------------------------|---|------------------------------------|--------------------------------|
| 1st year. | 2d year. | 3d year. | 4th year. |
| Grain, as Rye, Oats, &c. | Potatoes, Turnips, Beans, Peas, &c. manured | Wheat and Grass, and Clover Seeds. | Grass and Clover, for feeding. |

By this rotation, wheat in one field follows the manured green crops; and in another, the grain crops follow grass and clover. One-fourth of the farm is manured every year; one-half of it is in renovating, and one-half in exhausting crops.

For light, poor soils, the following four crop rotation will answer much better than either of the above:

| FIELD NUMBER ONE. | | | |
|--------------------------------------|----------|----------------|--------------|
| 1st year. | 2d year. | 3d year. | 4th year. |
| Turnips, Potatoes, Peas, &c. manured | Oats. | Corn, manured. | Rye or Oats. |

| FIELD NUMBER TWO. | | | |
|-------------------|----------------|--------------|--------------------------------------|
| 1st year. | 2d year. | 3d year. | 4th year. |
| Oats. | Corn, manured. | Rye or Oats. | Turnips, Potatoes, Peas, &c. manured |

| FIELD NUMBER THREE. | | | |
|---------------------|--------------|--------------------------------------|-----------|
| 1st year. | 2d year. | 3d year. | 4th year. |
| Corn, manured. | Rye or Oats. | Turnips, Potatoes, Peas, &c. manured | Oats. |

| FIELD NUMBER FOUR. | | | |
|--------------------|--------------------------------------|----------|----------------|
| 1st year. | 2d year. | 3d year. | 4th year. |
| Rye or Oats. | Turnips, Potatoes, Peas, &c. manured | Oats. | Corn, manured. |

This does very well where large quantities of

horse feed are to be raised, and near towns where abundance of manure can be easily procured: but would not answer at all where cows are kept. It can be modified in that case by sowing grass seeds, in Field No. 2, with oats the first year, and grass for feeding in Field No. 3.

The five crop rotation may consist of the productions and be cultivated in the order as laid down in the following diagram:

FIELD NUMBER ONE.

| 1st year. | 2d year. | 3d year. | 4th year. | 5th year. |
|------------------------|-----------|---|-------------------|-------------------|
| Potatoes, &c. manured. | Corn, &c. | Wheat or Oats, with Grass and Clover Seeds. | Grass and Clover. | Grass and Clover. |

FIELD NUMBER TWO.

| 1st year. | 2d year. | 3d year. | 4th year. | 5th year. |
|-------------------|------------------------|-----------|---|-------------------|
| Grass and Clover. | Potatoes, &c. manured. | Corn, &c. | Wheat or Oats, with Grass and Clover Seeds. | Grass and Clover. |

FIELD NUMBER THREE.

| 1st year. | 2d year. | 3d year. | 4th year. | 5th year. |
|-------------------|-------------------|------------------------|-----------|---|
| Grass and Clover. | Grass and Clover. | Potatoes, &c. manured. | Corn, &c. | Wheat or Oats, with Grass and Clover Seeds. |

FIELD NUMBER FOUR.

| 1st year. | 2d year. | 3d year. | 4th year. | 5th year. |
|---|-------------------|-------------------|------------------------|-----------|
| Wheat or Oats, with Grass and Clover Seeds. | Grass and Clover. | Grass and Clover. | Potatoes, &c. manured. | Corn, &c. |

FIELD NUMBER FIVE.

| 1st year. | 2d year. | 3d year. | 4th year. | 5th year. |
|-----------|---|-------------------|-------------------|------------------------|
| Corn, &c. | Wheat or Oats, with Grass and Clover Seeds. | Grass and Clover. | Grass and Clover. | Potatoes, &c. manured. |

By this rotation, it will be observed, that one-fifth of the land is manured every year; two-fifths are producing exhausting, and two-fifths renovating crops. It is worth while, also, to bear in mind, that corn, manured, may, in all cases, where desirable or necessary, be substituted for potatoes and the other root crops. In heavy soils, this rotation may be laid down as follows:

No. 1—Wheat, oats, or rye, with grass seeds and clover.

No. 2—Grass and clover.

No. 3—Corn, peas, carrots, beets, or parsnips, without manure.

No. 4—Potatoes, turnips, corn, &c., manured.

No. 5—Corn.

The wheat, &c. of Field No. 1, will, in the second year, take the place of the corn in Field No. 5; whilst the grass and clover of Field No. 2, shift into Field No. 1; the corn, peas, &c. of Field No. 3, into Field No. 2, &c. This will give more grain, corn, and root crops—but less grass than the last rotation.

The six crop rotation may be exemplified as follows:

FIELD NUMBER ONE.

| 1st yr. | 2d yr. | 3d yr. | 4th yr. | 5th yr. | 6th yr. |
|---|--------|---|---------|---------|---------|
| Potato's and other Root Crops, manured. | Corn. | Wheat or Oats, with Grass and Clover Seeds. | Grass. | Grass. | Grass. |

FIELD NUMBER TWO.

| 1st yr. | 2d yr. | 3d yr. | 4th yr. | 5th yr. | 6th yr. |
|---------|---|--------|---|---------|---------|
| Grass. | Potato's and other Root Crops, manured. | Corn. | Wheat or Oats, with Grass and Clover Seeds. | Grass. | Grass. |

FIELD NUMBER THREE.

| 1st yr. | 2d yr. | 3d yr. | 4th yr. | 5th yr. | 6th yr. |
|---------|--------|---|---------|---|---------|
| Grass. | Grass. | Potato's and other Root Crops, manured. | Corn. | Wheat or Oats, with Grass and Clover Seeds. | Grass. |

FIELD NUMBER FOUR.

| 1st yr. | 2d yr. | 3d yr. | 4th yr. | 5th yr. | 6th yr. |
|---------|--------|--------|---|---------|---|
| Grass. | Grass. | Grass. | Potato's and other Root Crops, manured. | Corn. | Wheat or Oats, with Grass and Clover Seeds. |

FIELD NUMBER FIVE.

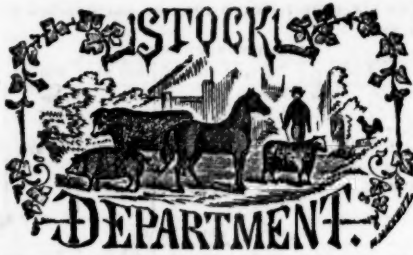
| 1st yr. | 2d yr. | 3d yr. | 4th yr. | 5th yr. | 6th yr. |
|---|--------|--------|---------|---|---------|
| Wheat or Oats, with Grass and Clover Seeds. | Grass. | Grass. | Grass. | Potato's and other Root Crops, manured. | Corn. |

FIELD NUMBER SIX.

| 1st yr. | 2d yr. | 3d yr. | 4th yr. | 5th yr. | 6th yr. |
|---------|---|--------|---------|---------|---|
| Corn. | Wheat or Oats, with Grass and Clover Seeds. | Grass. | Grass. | Grass. | Potato's and other Root Crops, manured. |

We trust that we have said sufficient, and made ourselves explicit enough in the enunciation of our ideas, to convey to our readers a tolerably accurate conception of the principles involved in the rotation of crops. We are aware that there may be imperfections in our theory, and that those practical farmers who have devoted their attention to the subject (of whom there are many), may be able to suggest many improvements. The criticisms of such we shall be glad to receive.

In taking leave of the subject for the present, we will merely remark *en passant*, that the farmer who does not adopt some system of alternate husbandry, is sadly behind the age. P. P.



[Written for the Valley Farmer.]

FATTENING HOGS.

Hogs are best fattened in a dark place. The pork will be sweeter and more tender, and accumulate faster. This is not generally known, though, with a little thought, it may be readily understood. The sun is a toughener of vegetable fibre. It not only gives color, but it hardens—or, to speak more correctly, it eliminates moisture—thus lessening bulk. Hence, vegetable growth in cellars has comparatively little leaf, little fibre, but much water.

It is the same with animal life. People accustomed to the sun are tough. In-door life disposes to corpulence and loss of strength.—Household plants, like the fair hands that wait upon them, are pale and tender compared with those of the garden and the field. In fattening hogs, much depends upon breed. Indeed, this is the important point, both as regards fattening and keeping. It is almost incredible what a large amount of narrow-backed, bristling hogs are still to be found. It cannot be ignorance alone; it is shiftlessness, and a shame to a man to be found surrounded with a drove of hogs that seem more like wild swine than civilized hogs, consuming all that the hard earnings of the man can procure. And the end of all this is a rank, tough, and most expensive pork. Such hogs are not only a damage, they are a disgrace to their owners, and a terror to the neighbors.

On the other hand, the improved breeds are quiet and docile. There is something neat and pleasant looking about them, hog though they be (and they will wallow sometimes); a disposition playful and inoffensive; and that characteristic round, sleek look, all of which make the pig one of the household pets. But their greatest recommendation is as porkers—or, as Elia (the incomparable Lamb) has it, "I speak not of your grown porkers—those hobble-de-hoys—but a young and tender suckling, under a moon old; guiltless, as yet, of the sty; with no original speck of the *amor immunditiæ*, the hereditary failing of the first parent, yet manifest; his

voice as yet not broken, but something between a childish treble and a grumble—the mild forerunner or *proclodium* of a grunt," all of which, when properly prepared and interpreted, means roast pig.

Such a creation comes only from a good breed, and could never have been said of the wild boar species: there are other chronicles for that, which pertain not to the table, but to the chase.

I do not know the proportion of feed required for the different breeds. The statement is doubtless on record. The difference is more than half according to some; less than that according to others. There is also difference in this respect, in the variety of breeds, with some latitude of opinion among judges. Our State fairs afford excellent opportunities for comparison. Any improved breed is better than the old variety, which it is wisdom at once to get rid of. The New York State Agricultural Fair this year, exhibited a cross between the Suffolk and Yorkshire, which attracted unusual attention. The color is white, with a disposition in some to assume the pink or flesh color. There is little hair or bristle: the breed is almost naked. I have seen nothing finer in every respect than this breed. A pig, in six months, will attain two hundred pounds on milk alone. Such is the testimony of the farmers in the county (Jefferson) where the fair was held, and where they claim the breed originated. They are fast spreading, and, in our opinion, will soon supplant most others. They seem the perfection of the hog species.

F. G.

WHY HORSES KICK.

RAREY'S METHOD OF CURE.

Kicking is the worst vice which horses are taught. Few men will deny the first part of the assertion, but some will doubt that the vice is the result of education; for, say they, "Does not the horse kick by natural instinct, as a protection against enemies?" Certainly he does, and if he is made to think (for horses do think) that every touch upon his flank and hind quarters, and every rattle he hears behind him, are from an enemy, he will let drive in the most natural manner.

The character of a horse is established during the first four or five years of his life. If through accident or design, a colt be alarmed from behind a few times—particularly if he receive a sudden blow—he will learn to expect danger from that quarter, and to ward it off with his heels; and the finer and more spirited his organization, the more likely he will be to acquire the vice. For example, a young colt had become quite troublesome by entering neighboring fields, over the dilapidated fences of his owner. After repeated annoyance, and

much vain expostulation, one of the aggrieved parties caught the colt while trespassing; fastened a tin pan to his tail, and turned him loose. Away went the frightened animal, plunging and kicking to get rid of the fearful enemy banging at his heels, and he nearly killed himself before breaking it loose. From that day he was a confirmed kicker; not a leaf could rustle in his rear, but his heels would fly like lightning; and he was harnessed and driven only at the peril of life. Another colt was taught to kick while confined in the stable, by his owner ignorantly trying to "break his spirit." This he did by belaboring with a cow-hide, and yelling at the top of his voice! The horse was frightened into the belief that man was an enemy, and he acted accordingly, kicking at every one who did not terrify him into temporary submission. This was as sensible as the advice of an English horse-breaker of the olden time: "If your horse does not stand still, or hesitates, then alrate (yell) with a terrible voice, and beat him yourself with a good stick upon his head between his ears, and stick him in the spurring place, iii or iiir times together, with one legge after another as fast as your legges might walk; your legges must go like two bouncing beetles!"

In the training of the colt, too little attention is paid to educating the whole animal. He should be gently and continually handled, not only about the head and mouth, but from "end to end." First invite his affection by little presents of corn, or a few crumbs of bread. Having gained his confidence, smooth his neck, then gradually extend your attentions along his back, and down his flank, and so on day by day advancing a little at a time, until you may safely handle every part. In time he will learn to bear a smart slap upon the haunches without thought of retaliation; and when once he has learned this, he cannot be made to kick by any fair usage. The man who abuses a horse, deserves a kick.

But can a confirmed kicker be cured? Rarey says yes, and if one can exercise Rarey's firmness, good sense, and patience, we believe he can make the worst kicker safe. We witnessed his treatment of a most dangerous mare, and the effects of the one lesson given seemed marvellous. He first applied the strap to the foreleg, then led her around upon three legs, until the creature found she could not kick. He next threw her, and commenced handling her flank and hind quarters, at which she kicked violently. But she soon found that nothing resulted from it; nobody was hurt, frightened or angered, and in about fifteen minutes her intrepid conqueror lay down and placed her hind foot upon his head. When she was released, he mounted and dismounted repeatedly, until she allowed him to sit quietly upon her haunches. Such lessons, repeated half a dozen times or more, as the case might need, he said would tame her hind quarters. Our advice is, first, don't teach your horse to kick; but if unfortunately you have been cheated in trade, and are the owner of a dangerous beast, don't try to cheat any one else; try the Rarey method

thoroughly, or employ an experienced horseman to do it, and so make the best of a bad bargain.

MUSCLE VS. FAT.

The value of muscle and fat as regards contributing to the healthy action of the animal economy, is of such a nature as not to admit of argument. They are both necessary. While admitting that, we are forced to look with surprise at the (to us) inconsistent views taken in relation to the estimated value of their constituents. I mean the value of nitrogen in the formation of animal organism. Here also is the primary importance of nitrogen carried over as a second edition—the first being its value as a plant food.

We must concede value paramount to that component of the animal organism which exercises the greatest influence over its perfect working. This may arise from a delicate situation held by that component, or from its performing more than one function.

Muscle is composed of carbon, oxygen, hydrogen and nitrogen, and these are all necessary to form muscle. Carbon holds, by far the largest share, and being likewise of as much value as nitrogen, as regards giving a helping hand towards muscle, and as it holds full sway over the rest of the constituents in relation to quantity, we give it the pre-eminence.

This is its first value, and the second is its heat-forming property. All animals have an internal furnace (lungs), and also fuel (carbon). Heat is generated by the uniting of the oxygen of the air in the furnace (lungs) with the fuel (carbon). We now see that carbon performs two functions, while nitrogen but one. Carbon performs the same office as nitrogen, also one other. I ask all of your readers which is the most valuable?

CURE FOR THUMPS IN HOGS.

ED. VALLEY FARMER: I wish to make my acknowledgments to the *Valley Farmer*, and to Mr. J. W. Salter, for a valuable remedy for the cure of Pneumonia or Thumps in hogs.

About a month since I noticed that a very valuable pig, which I procured for breeding purposes, began to lose his appetite, and soon his respiration became hurried, and attended with a quick, jerking motion of the sides. He also coughed considerably. Never having had any experience with such a disease, I searched for a description of the disease and a remedy. In the August No. of the *Valley Farmer* I found what I considered a case similar to mine, i.e. Thumps. I tried the remedy, *veratrum viride*, ten drops, three times a day, in milk. His appetite improved immediately, but it was a week or two before his breathing was less rapid or his cough diminished. He is now about cured, and thriving very fast. I also turned the pig out of his pen in which he had been confined before,

I consider that number of the *Farmer* has been worth at least \$20 to me in this case; and, feeling grateful for the benefit, I could do no less than write you this.

Yours truly,

Ottumwa, Iowa, Sep. 20, '61. O. C. GRAVES.

SHELTER FOR SHEEP.

We have heard farmers contend, that the only shelter needed by sheep, was a stone fence, a hill, or piece of woods, to keep the wind off; and one of this class (we take it,) learned better from the following incident, which he relates in *Field Notes*:

"Last winter I fed about eighty ewes in my meadow, as above stated. [Helping themselves to hay from stacks, or to "old fog" on the meadow, with a little grain daily]. I had in an adjoining field an old house. I made the way open to the meadow; I did not force the sheep into the house, but left them to be their own judges about going in. It would have done you good to see them marching out in the morning to their feed, in single file, and back in the evening to shelter from the chilling blasts of a cold winter night; and if the day was extremely cold, they took up their line of march twice a day back and forth. I think they did not lay out in the open air to exceed half a dozen nights during the whole winter, and those nights were moderately warm. I was so well pleased with this arrangement in the spring, that I immediately put two shelters, one in the meadow—frame thirty-two feet by fourteen, posts four feet high, weather-boarded and roofed—to be used at pleasure by the sheep. The other I built in one corner of a field, by setting up three rows of posts in the ground, the highest in the middle, and roofed both ways, and open on the east side, to be used by my ewes and young lambs of nights and stormy days."

Will the Ewe Breed Twice in One Year.

As you have lately published the opinion that it is possible to make the ewe breed twice in one year, I will bring to your notice an instance which I consider to be very unusual. Allow me to say, I doubt if it would be politic as a rule to keep a flock for the object and with the view of making such fecundity the essential qualification in a breeding flock; but in the case of a scarcity of lambs, an old ewe might oftentimes be made to produce an extra 10s. in the year by such a mode of treatment. The great objection would be the risk incurred by castration in the autumn of the year, although a plentiful use of tar might obviate most of the inconvenience. The case in point is that of a ewe put to ram in August, 1858. She had twins in January, 1859, which were sold in May for 30s. each. She had a single lamb in August following, which was sold in December for 25s.; and on the 24th of last month she again produced a fine lamb, and is herself in better condition than she has been at any period since I have been her owner. How long she may continue to produce at this rate, I cannot tell, but

she shall not be sacrificed to the butcher while she continues such a useful member of the commonwealth. The Norfolk ewe is best adapted for twice in one year. It is a hardy sheep, and produces abundance of milk.—[*E. Agate, in the Mark Lane Express.*]

Live Cattle Weighed by Measure.

The only instrument necessary, is a measure with feet and inches marked upon it. The girth is the circumference of the animal just below the shoulder blades. The following contain the rules to ascertain the weights of animals.

If less than one foot in girth, multiply superficial feet by eight.

If less than three feet and more than one, multiply superficial feet by eleven.

If less than five and more than three, multiply superficial feet by sixteen.

If less than seven and more than five, multiply superficial feet by twenty-three.

If less than eleven and more than nine, multiply superficial feet by forty-two.

Example—Suppose the girth of a bullock to be six feet three inches; length, five feet six inches, the superficial area will then be thirty-four; and in accordance with the preceding rule the weight will be 782 pounds.

Example—Suppose a pig to measure in girth two feet, and length one foot nine inches—there would be three and a half feet, which multiplied by eleven, gives thirty-eight and a half pounds as the weight of the animal when dressed. In this way the weight of the fore-quarters can be substantially ascertained during life.

Trotting Horses too Young.

It has long been our opinion that horsemen are too much given to putting their promising colts to their speed at too early an age. We have in our memory a number of splendid young horses which, as we think, were just about ruined by such blunders of their owners.

There can be no objection to commencing the process of training at quite an early age. Indeed the work of education should begin while yet they are sucking colts. But as the development, strength, and power of endurance come on gradually, rarely attaining their maximum until the horse arrives at the age of six or seven or even eight years, it would seem to be the teaching of philosophy and common sense that the severe trials of speed and power should not be imposed until the period of maturity.

And yet nothing is more common, at most of our State and County Fairs, than to see young colts of hardly three and four years put upon the trotting course and whipped through to the very verge of their endurance. In our way of thinking, such practices are not only unwise but barbarous and inhuman.—[*Wis. Farmer.*]

MILK FEVER IN COWS AFTER CALVING.—This disease is caused by drinking cold water after calving, and being in the hot sun. A few days

before calving put them in the shade, where they can have good fresh air. After they come in give them warm drinks for about three days, with a little scalded bran to keep the bowels loose. When you commence giving cold water, give about half a pailful at a time, and increase gradually until you get the cow up to a full drink. Cows that are allowed to be in the sun, and drink what cold water they want after calving, will be very sure to die with milk fever. I have no objection to milking cows before they come in, if their bags get very full and hard.—*H. C. in Albany Cultivator.*

Why Sows Destroy their Young.

The following seems a sensible article on this subject, and is deserving the attention of the farmer. It is from a correspondent of the *Homestead*:

I have always kept breeding sows, and in early life met with many vexatious losses from the sows destroying their pigs. Common sense told me that this must be caused by some treatment by which man thwarted the designs of nature; as in the natural state, animals may be left in safety to their instincts, of all of which the strongest is love for their young. This led me to study hogs closely during the latter period of pregnancy, and watch all their ways up to the time of pigging. I also noticed my neighbors' treatment of their breeding sows, and by comparing results I learned what caused this danger, and how to guard against it.

Costiveness, and its accompanying evils, are the main cause of sows destroying their young—and proper food is the preventive and cure.

I have never known a sow to eat her pigs in the autumn, when running at large with plenty of green food; but with hardly any exception, sows littering early in the spring are troubled with costiveness, which is frequently so severe as to be accompanied by inflamed eyes, great restlessness, and other signs of suffering. This restlessness sometimes increases till it amounts to frenzy. I have had them become so savage as to attack me fiercely, though at other times perfectly gentle. If not stopped, this frenzy may increase with the pains of labor, and the sow will then destroy her young, or any other living thing within her reach. Cure the costiveness, and this restlessness and irritation will be cured, and if she was a good natured sow, she will become gentle and quiet again.

Green food is the cure. As it is usually scarce at this season, you ought to provide for the emergency by saving roots to feed them.—Formerly I used potatoes for this purpose, but since the potato rot commenced I have used sugar beets, and always have some on hand to feed my sows for several weeks before they come in. They are very fond of them, and eat them greedily raw. A half peck or more a day with but little other food, will keep a sow in the finest condition. Potatoes are as good, and carrots, parsnips, mangel wurtzel, or turnips will do—but it may be necessary to boil them and mix them with other food. If you have no roots of any kind, you must resort to sulphur, and give a large tablespoonful two or three times a week,

for several weeks before littering. Give also a little charcoal occasionally, and always be kind and gentle to them, and they will never attempt to kill their pigs.

A common mistake is to move the sow to another pen shortly before she litters. This is very irritating to her. She should be separated from the others and moved to her new quarters several weeks before her time is out. She must be kept sheltered, and a week before she litters supplied with all the straws she will want, which will be better for being short. After this her nest must not be molested, and she ought not to be disturbed in any way, as it is the nature of all animals to seek privacy at this period. Hogs are more true to their time than other animals, and rarely vary more than a day or two.

But if you want to be sure to lose your pigs, feed your sow on corn and cob meal. This will make her very costive, fed without much other food. Then, when she is sick and feverish, and consequently cross, irritate her yet more by driving her from the nest she has become accustomed to; then let the boys tease and abuse her every day, and if the poor, maddened animal does not destroy her young as fast as they are born, it will not be your fault.

Cramp or Spasm in Horses.

I was requested a short time ago to visit a horse, said to be the subject of "atifle lameness." The patient, a gray gelding, aged eight years, was put up at the stable on the evening preceding my visit, apparently in perfect health.—Early in the morning, ere I was called, the "feeder" observed that the horse was incapable of moving the near hind limb, and it appeared to be, as I was informed, 'as stiff as a crowbar.'

On making an examination of the body of the animal, he appeared to be in perfect health; yet he was unable to raise the limb in the slightest degree from the stable floor. The case was accordingly diagnosed as a cramp of the flexors.

Treatment—The body and lower parts of the limb were clothed with blankets and flannel bandages, and the affected limb was diligently rubbed for half an hour with a portion of the following liniment: Oil of Cedar, 1 oz.; Sulphuric Ether, 2 ozs.; Proof Spirit, 1 pint.

In the course of a few hours after the first application, the difficulty had entirely disappeared.

The owner informed me, that the horse had, the day prior to the attack, been exposed to the cold and continuous rain storm, and probably this operated as the exciting cause of the spasm.—[*Amer. Stock Journal.*]

BLIND CATTLE.—We learn, says the *California Bee*, that W. C. Wright, of Knight's Landing, in Yolo county, has 50 head of stock out of a herd of 200 that have gone blind within the last six weeks. C. F. Gray, also of that place, has 70 gone blind out of 200; and Kirk and Phillips, in that vicinity, have many that are going blind. And we learn that all the way from Fremont to Colusa, cattle are going blind.

SCOTCH SHEEP IN NEW JERSEY.—Several Scotch mountain sheep have recently been introduced into Morris county, New Jersey, on the farm of S. F. Headley, Esq. Their wool is described as being of a better quality than any other long woolled breed—long, wavy, and soft, with no harsh or wiry feeling, like most of the mountain breeds—peculiarly adapted to worsted stuffs, and the carcass is said to give the very best and highest flavored mutton.

REMEDY FOR BLIND STAGGERS.—A writer in the *Charleston Courier* gives "an effectual remedy for that formidable disease in horses, the blind staggers," the recipe being as follows: "Gum camphor, 1 oz.; whisky or brandy, 1 pint—dissolve. Dose, 1 gill, in a half pint of gum arabic, flax-seed, or other mucilaginous tea, given every three or four hours; seldom necessary to give more than three doses. The horse must be kept from water twenty-four hours. Never bleed in this disease."

HOW TO MAKE WHEY OIL. HUFFEY CHEESE.—A correspondent of the *Ohio Farmer* writes that paper on the above subject as follows:

"I wish to give our manner of manufacturing whey oil, as it requires the least possible labor: Let the whey into a vat where it can remain undisturbed for twenty-four hours; then skim the cream into a kettle and place it by, or over, the fire, and try the same as lard, or for any other grease; the oil will rise and can be dipped off, leaving the sediment on the bottom. This saves the process or labor of churning, and answers all the purpose.

In a number of dairies that I have visited, I find quite a quantity of huffey cheese. My experience in the dairy leads me to this conclusion in reference to that class of cheese: First, too much rennet was used; second, the cheese was highly scalded; third, not over two-thirds enough salt was used; fourth, the cheese was put into the press to warm. The curd should be nearly cold, and the quantity of salt one teacupful to 25 lbs. of cheese."



THE ALPACA, OR PERUVIAN SHEEP—A SPECIES OF LLAMA.

Although delicate in appearance, the Alpaca is perhaps one of the hardiest animals in creation. Nature has provided him with a thick skin and warm fleece, and as he never perspires like the ordinary sheep, he is not so susceptible of cold. In the severest winter he asks no extra care, and his teeth being well adapted to crop the rushes and coarse grass with which moors abound, he will live where the common sheep would be in danger of starving.

Mr. Bennett, England, had a pair of Llamas sent to him from Peru thirty years ago, and fed them on turnips and hay in the winter.—

He found them hardy, very long lived, and easily reared.

Their colors vary, some being entirely white, others entirely black, and occasionally part-colored; the flesh being good.

The demand for Alpaca wool in England is rapidly increasing, showing that it is well worthy the attention of the American farmer to make experiments of raising the animal amongst us.

There are five species of the Llama, but the Alpaca alone produces fine wool, like the fur of the beaver, at the base of the coarser hair.



HORTICULTURAL.

Read before the St. Louis Horticultural Society.

PRUNING FRUIT TREES.

BY DR. CLAGGETT.

The time and manner of pruning fruit trees, must be determined by the objects to be attained by pruning and the condition of the tree.

The two main objects, are the growth of the tree and the production of fruit; with each of these is connected another object, the form and symmetry of the tree, and the quality and quantity of the fruit—the quantity increased at the expense of the quality.

The first thing is to produce a healthy, well-formed tree; this done, the remainder of our work will be easy, so far as pruning is concerned; for if a tree has been correctly treated till it has attained the proper size and form for bearing, it will generally come into bearing quite early enough for its ultimate usefulness. But if the proper treatment in the early stages of its growth has been neglected, the after-treatment will be more difficult and complicated, and must be modified according to the peculiarities of each particular case. The first thing, then, is to establish the proper time and manner of pruning from the commencement till the ultimate object is attained, which, if properly understood, we will be better prepared to modify our treatment to suit each particular case where correct treatment has been neglected in the early stages of its growth.

There is a strong analogy in the training of a young tree, to the training of a child, and those who have both may advantageously make each auxiliary to the other. He will not only improve in the management of both, by observing the analogies of the one to the other, and the consequent treatment required; but the child will aid him in the work, and become interested in the study of the operation of natural laws in the development of the tree, and realize its utility in the production of rich fruit. And while they are adding to the endearments and comforts of home, their sympathies are being turned in the right direction, and in due time will be prepared for and interested in bringing their proper fruits, and saved from the hurtful influences to which they would otherwise be exposed.

I remember to have heard a very wise gentleman say, that if it was necessary to use the rod on a child, it should be done so early in life that when he came to mature age he should not remember it; so likewise, I say, that a tree

should be pruned in the early stages of its growth, so that when it comes into full bearing the evidence of the operation shall not be visible.

I will proceed to examine the principles that should guide us, both as to the time and manner of pruning; for unless we have some established principles to guide us, our success will be but partial and accidental. To do this, we must turn our attention to the mainsprings of action, the operating causes, and follow them in their course to their ultimate results; seeking to aid the operations of natural laws by supplying facilities, removing obstructions, and turning the streams into proper channels; for if we content ourselves with classifying effects merely, which are often accidental, incidental and varying, we shall be ever learning and never come to a knowledge of the truth.

We set out to raise a tree that will, in a given time, produce the largest quantity of fruit of the best quality; and, if we derive pleasure from the sense of the beautiful, of symmetrical proportions. Keeping these ends in view, we direct our operations accordingly.

First we aim to obtain the proper number of branches; secondly, that they are properly distributed, and take the proper direction, and that the length bears a proper proportion to the thickness.

For the attainment of these ends, we prune and train; we cut off branches where there are too many, to lessen the number—and we cut off portions of branches to increase the number.—These seem to embrace almost, if not the entire objects for which pruning is resorted to; for if these are properly done, the ultimate object—the fruit—follows, as a natural consequence.

Perhaps some may be ready to say, "All that is very simple, we have long known all that"—and yet I think I hazard but little in saying, that simple, and yet important, as these points are—in a majority of orchards they are most sadly neglected.

Having stated the objects of pruning, we now come to consider what is the proper time, and the relative merits of winter and summer pruning. This, I think, will be found to depend on the object to be attained in each particular case. I believe it is a generally conceded principle, that winter pruning promotes the growth, and that summer pruning checks the growth. If this is correct, where it is desirable to promote the rapid growth of the tree, and especially to increase the number of branches, winter will be the best. But if the object is to diminish the number of branches, check the growth, and produce bearing, summer pruning may be adopted; but its proper application requires more experience and judgment than winter pruning, from the fact that more rapid changes are going on at that time in the condition of the tree. The safest criterion for the time is the condition of the sap, which is influenced as to time by a number of attending circumstances, among which are, the habit of the tree, the condition of the soil, the temperature of the weather, and whether it is a northern or southern exposure. To appreciate the proper condition

of the sap for operating, we must trace its circulation till it reaches the condition for healing the wound. To prepare it for this condition, it must pass through the leaves, which are the lungs of the tree. It there parts with certain elements, and receives others from the air which are necessary to fit it to enter into organic tissue, wood, bark, or fruit. If the operation is attempted before the sap passes through this process of assimilation for the formation of woody fibre, the tree will be injured by unnecessary waste of material from excessive bleeding, the interruption in the circulation, and the unnecessary delay in the healing of the wound; for if the limb is amputated during the flow of the unassimilated sap, it will bleed excessively, the bark will recede from the edges of the wound, and a portion of it dry up before the sap becomes sufficiently assimilated to commence the healing process; so that the healing will not only be delayed, but less perfectly performed, and a ring of dead bark will be formed on the surface of the cicatrice, which died before the healing commenced. But if the operation is performed when the sap is in the proper condition, there is no waste of material, the healing commences immediately—goes on more rapidly, and is more perfectly completed.

I am satisfied that in pruning trees, as on many other subjects, there is a tendency to run from one extreme into another. Many fine trees are maimed and crippled for life, and their lives shortened, by improper and excessive pruning. No branch should ever be removed from a tree without an object in view, and unless the operator comprehends the adaptation of the means to accomplish the end proposed. Proceeding on any other plan, is more liable to injure the tree than benefit it; for if we met with success, it would be merely accidental.

I would never prune heavily at any time; but rather prune gently and often, and several times during the year, if required to promote the object—but, always with an object.

If a tree has been properly treated, it will seldom be found advantageous to prune to promote bearing. If it has attained a proper size, and remains barren, fruitfulness will not be best promoted by excessive pruning, either in summer or winter; but a better means will be found in the proper management of the sap, in which will be found involved the most important principles in the production of fruit. To apply the management judiciously, we must know something of its several conditions, for the same sap that will produce leaf, wood, and bark, by proper management may be persuaded to produce fruit by changing its condition.

That we may the better understand this branch of the subject, I proceed to notice the difference in the condition of a young and rapidly growing tree, and that of a more mature and bearing tree. A young tree is found with large, long, and thirsty roots, penetrating deep into the earth, drawing its support from below the better assimilated surface soil; the body chiefly sap wood, with large, open-mouthed, hungry cells, through which the sap flows freely and rapidly, and is adapted to the growth of

the tree, but does not become sufficiently assimilated and refined for the production of fruit; but, as the tree approaches the bearing condition, a change gradually takes place, fibrous roots are thrown out which penetrate nearer the surface, and draw its food from the better assimilated soil; the cells of that which was sap wood gradually fill with a denser fibre, and the proportion of sap wood becomes annually less; the fibrous roots take up more refined food, which is more easily assimilated, and from the less proportion of sap wood and the diminished size of the cells (which has given the requisite firmness to the tree to support its prospective load), the sap flows more moderately, and becomes more perfectly digested and refined, and thus reaches the fruit-producing condition.

But suppose the tree has reached the proper size for bearing, and from having been planted too deep, or from other causes, it remains barren. How shall we best promote the bearing condition? Shall we maim the tree, by severe pruning, to draw off the superabundant flow of unassimilated sap, and by violence threaten its vitality, that it may hasten to leave seed to reproduce itself before it expires? or shall we proceed more in harmony with natural laws—cut off the water shoots, and pinch off the ends of soft, porous branches, which naturally attract the sap and bend the branches, by which we impinge and contract the sap cells and check its flow where it is no longer desired, and cause it to flow through the more matured spurs, from the more compactness of which it flows more tardily, when it becomes more refined and deposits the germs of the fruit to appear the following season.

If this treatment fails to produce the desired result on account of a deficiency of fibrous roots, prune the long, coarse roots to increase the fibrous, and you will seldom fail to produce fruit, without unnecessary waste of material or deforming the tree.

It may not be out of place here, to remark, that these principles apply with equal force in the production and re-production of all living structures—vegetable, animal, and even mental (for which all the rest were made); and when we have traced the operation of the law in the lower forms, we follow it on with easy steps through the higher and more complicated till we reach the highest—led on in nature through fields of beauty up to nature's God.

I have made these general remarks to develop the general principles that should guide us in our operations, and show that no routine practice can be relied upon; but that we should have principles to guide us, and be governed in our operations by conditions, for it will be easy to show how unreliable are what we call facts, and how liable we are to be led astray by them, unless they are considered in connection with other facts influencing the general result—that we may ascribe to each their proper share of influence. In many cases this can only be done by a number of experiments under a variety of conditions, especially if our general knowledge of the governing laws is limited; for we may commit mal-practice in one department where

all other influences are favorable, and accomplish desirable results in spite of our mal-practice; while, on the other hand, the most perfect practice in one department may fail on account of the absence of other necessary concurring influences.

In proof of this, I will give but a single illustration among many that might be offered.—The largest and handsomest dwarf pear tree in my garden, has never borne any fruit until this year, while younger trees have been bearing two and three years; but this has more fruit this year than one of those stunted, prematurely bearing trees will produce in five, and will, in all probability continue to bear increasing large crops long after the early bearers are dead. Now, if I had pruned this tree severely last summer, and it had borne half the present crop of fruit, I might have pointed to it as an evidence of the successful results of free summer pruning.

[Written for the Valley Farmer.]

LOOK TO YOUR GARDENS.

When your garden is cleared, spade it. Spade it deep, (all gardens should be deeply worked, so as to allow of deep rooting,) say fifteen to twenty inches. Fetch up the underground as much as possible. Then sprinkle lime over it. If but little lime has been used heretofore, add more, say five to ten bushels, in all, to the one-sixteenth of an acre. Take a rake and mix the lime thoroughly with the top-soil. So leave it till spring, unless you wish to add a little salt and ashes, which is sometimes done with benefit. Of course, now is the time also to apply your manures; but do not spade them in too deep; they need the atmosphere, without being absolutely exposed to it, which, however, is better than having them buried the whole depth of your soil. Treating your soil in this way, in the spring you will find it mellow, and getting mellow. This, you know, is a requisite of no trifling importance. For lime, among its other benefits (elsewhere noted), has this quality of making the soil friable in an eminent degree. Another rare point—one not sufficiently appreciated—is, that it takes away, in a measure, the harshness of taste of the fruit of your garden. In other words, it sweetens the soil—consequently its productions. Remember this always, and never let your garden be without lime.—But it does more: it destroys, in connection with the salt and ashes, insects and noxious weeds. Finally, it adds fertility. It is hard to do without lime in your garden. You may use it sparingly every fall, or, more plentifully, once in two, three, or even four or five years.—It is very lasting: its full effect is never seen at once. Another effect of lime, is its mellowing

influence on tubers, peas, beans, &c., but especially potatoes, which will be more mealy and sweeter, and I think less liable to rot. This last, however, is more theory than observation. I have seen rotten potatoes on a well-limed soil where the ground was wet, and very few where it was dry. Where the ground is stubborn, sand and well-rotted chip manure may be added to the lime, and the soil exposed to frost as much as may be. These will aid in making your ground manageable. But remember, always spade deep. This is sub-soiling and draining at the same time. Thus much for general directions as to lime in a garden.—Where the garden is already supplied, of course it is not needed. But generally the advice holds good. And more: if people can once be brought to use lime on a small scale, it will soon find its way to the farm, and thence to the neighborhood: for the secret is too good to be kept.

There are more directions concerning gardens; but what we have said is the most important, and will do for one instalment. It will make a good out of a mediocre garden; and much of it the first year—more the second—and still more the third. This same one coating of lime will do this; or, if less is applied, it must be renewed every year. For ourselves, we like the one thorough application, which lasts; thus doing the work once, which otherwise would have to be repeated yearly. Treated in this way, your garden will be ready for spring.

Expose your soil; and when spring comes it will be loose and mellow, ready to receive the spade and the seed—but no manure, unless in a liquid or decomposed state; this may be applied where there is a lack of fertility. A garden should never be spaded when wet, or in a doubtful state of moisture—and some soils will not admit of spading when too dry. A rich, well-conditioned soil has life in it, and must not be abused. It requires careful handling, at the right time. It will then maintain its mobility and fragrance. When worked into mud—which wet spading measureably does—it will be death to it. And, a soil is never perfect unless it is black. Especially in the spring is this necessary, in northern latitudes. The sun loves a black soil, and will nourish it with heat, which is so much needed in early spring. Powdered charcoal is good for this, or any black soil, or rotten wood, or, as once stated in this journal, a coat in the spring. It is easy to do a thing when the principle is kept in view. Invention then is called out, and the man has entered his career of

prosperity. He not only acquires knowledge, but sharpens the faculty of acquiring it. And the mind is capable of infinite expansion. It is this head-work, based upon our admirable system of schools, that will give this country the lead in agriculture as in other sciences. It will more and more become a necessity of farming, so that an uneducated man, a mere tyro, has no business to meddle with soils. Already this is felt in some districts in this country, and is often the rule in England and Europe. A garden is frequently the beginning of scientific farming.

F. G.

[Written for the Valley Farmer.]

The Vine—Producing New Varieties From the Seed.

BY EMIL MALLINCKRODT.

All our fruits, *without exception*, are seedlings, derived from wild originals, which were perchance sour, bitter, dry, tough, and unpalatable. The crab apple, choke pear, wild plum, peach, olive, grape, orange, and fig, are the parents of the choicest fruits we enjoy. A seedling of merit is perpetuated only, and increased, by engrafting upon common stocks. Grafting adds no quality to the original seedling; on the contrary, any seedling is superior on its own roots for hardiness, productiveness, and regular bearing.

What causes a worthless original to acquire excellent qualities? I answer: Culture and hybridation. What is hybridation? It is the impregnation by the pollen of two or more species of plants belonging to the same family or genus, thereby producing a new hybrid or variety. Two species of the same genus will produce endless varieties of fruit in quality, size, time of maturity, &c., under the benign influence of culture. Not only are the productions of our temperate zones the result of the foregoing causes, but the same is (according to Baron Humboldt) the case with tropical fruits, as the banana, bread-fruit, orange, cocoa, and many others, which are cultivated by the natives, around their huts and villages, and rarely found wild; with similar differences in relation to wild originals. If there existed but one genus of a certain plant, it would, even under the highest state of culture, *vary* but little. The main hope for improvement comes through hybridation, which changes originals completely into endless varieties—many worthless, and a few excellent. Now, it is obvious, that where a plant springs up a natural production of soil and climate, that in such locality it will attain its highest excellence under culture.

America was discovered about the year 1000, by Leif, the son of Erick the Red, from the North to the 41½°, and was called by Leif the *good vinland* (vinland it goda), on the coast between Boston and New York, comprising now parts of Massachusetts, Rhode Island and Connecticut, showing that the wild vine flourished 900 years ago, not only along the coast, but over the whole of North America; while it is an historical fact, that the European Continent, now so

famed for its grapes, raisins, currants and wines, had not one wild original vine in its whole extent, but that it was introduced from Asia. The vine being thus an exotic to Europe, and native to America, how hopeful is our prospect of bringing forth in time grapes of surpassing excellence for all purposes of the table, raisins and wine; the more so, as the highest hope for general temperance rests on this pure native juice, which is healthful and invigorating, while spirituous liquors spread misery and ruin broadcast where the vine is not cultivated. In all wine-producing countries, the people are proverbially temperate, as in Italy, France, and southern Germany; while in the northern parts of the same, where it is wanting, drunkenness prevails. A kind Providence has blessed this land, as well as the Land of Promise, with the generous vine.

Now, if *two species* of a genus produce numberless varieties by hybridation, how great is our chance! being possessed of a great number of native species—for instance: *Vitis labrusca*, *æstivalis*, *cordifolia*, and perhaps twenty more, all distinguished for special properties, as to flavor, sugar, color, size, fitness for the table, wine and raisins; varying in time of maturing, and suited to every soil and climate.

What nature brings forth sometimes by chance seedlings, we can direct by our judgment and care; what nature performs by chance, we can reduce to a system. Considering that scarcely half a century has elapsed since the cultivation of the wild vine was commenced, or paid the least attention to—it is highly encouraging to see the number of valuable natives springing up yearly: bidding fair to improve, and equal probably in time the celebrated grapes of Astrachan and Damascus. Size, color, aroma, sugar, flesh and juice—all can be attained by the systematic culture of our native vines, by approaching such species as are possessed of qualities which we desire. The only hope for acclimating European grapes of great merit, rests upon a succession of seedlings, until they finally become like natives. We seldom give seedlings the value and importance which they deserve.—*Through them alone* comes the improvement of all cultivated plants and fruits, as well as cereals, vegetables, and flowers. So are the diseases and defects of many plants corrected by a succession of seedlings, managed with judgment. Climatical influences and peculiarities of soil and situation are most effectually overcome by generations of seedlings.

The breeding of animals, for certain uses, with the success that has crowned such efforts, is equally applicable to plants. Is it not surprising, that while during the last half century only has there been the least attention paid to the culture of the vine in this country, yet within that short time has sprung up the many valuable sorts we now possess? To these we must look for further improvement.

To speak of other fruits—the plum, for instance—we know that some kinds are little affected by curculio, while others are entirely ruined by them. The cause may be owing to the time of the development of the fruit, or its quality. Might not the evil be overcome by the

selection of proper seedlings? The same applies to constitutional strength or feebleness, as to the blight of the pear, the mildew and rot of grapes of peculiar varieties, or the loss of foliage before the proper time. Varieties subject thereto should be discarded, and others of healthier constitution sought.

The celebrated Van Mons, of Belgium, has become as noted for producing new fruits from seed, as Bakewell, of England, for his breeding of stock. Both were equally successful, and reduced their experience by reflection to a system, so that Bakewell made an assertion, that if he imagined a fancy animal, he felt assured that in ten succeeding generations he could produce it. Van Mons preferred the most thorny, hardy, scrubby seedlings; and from them, as the world knows, he produced his wonderful fruits.

As a remarkable instance of a naturalized foreign seedling, we have the Houghton gooseberry, suited to our climate like the hardiest native; while most other foreign varieties have entirely failed. Mildew was the inherent disease—while the Houghton seedling proved entirely free from it; showing, in this instance, that diseases, as well as other qualities, are constitutional among species of the same family, while others are exempt from them. If you sow the seed of the same apple or pear, every seedling therefrom differs, showing that nature sports in the most manifold way.

[Written for the Valley Farmer.]
Monthly Notes for the Garden and Orchard.

By Carew Sanders.
 DAHLIAS—THEIR TREATMENT.

We have seldom seen so fine a display of bloom of this noble flower as the present season has afforded. The weather has been just right throughout the season, to produce a gorgeous profusion of the most perfect flowers at the proper time—viz., in autumn; and it is still truly deserving the name it bears of 'Autumn's King.'

It is altogether a mistake to plant out the Dahlia so early as most people desire to do, and selecting old ground roots, divided; the consequence of which is, they make an early and luxuriant growth, and an abortive attempt to bloom by midsummer, when the hot weather is on them. The blossoms are burnt up by the hot summer sun; the plant becomes infested with red spider, thrip, &c., and before autumn it becomes exhausted and incapable of producing a perfect flower, or making any satisfactory show. A dahlia should not begin to flower before the latter part of August; for cool nights are essential to the production of fine flowers.

A synopsis of the treatment our dahlias received (which is very simple), may serve to show what conditions are probably best to secure the desired result, and which may be imitated by artificial means in seasons of a different character.

The plants used were mostly small plants in pots, of the current year's propagating, planted out from the first to the middle of June. They at once established themselves; but had made but little growth, when the hot weather of July and August set in. They grew slowly, but retained a healthy existence during the hot weather. After the first good rain, and with the fall-like nights of August, they commenced to grow rapidly, and make blossom buds in profusion, commencing to open by the first week in September. They have continued to produce an immense profusion of large and perfect blossoms, and at the present time (Oct. 21st), are still a splendid sight.

Out of a collection of a hundred or more varieties, is a list of a dozen of the best of each of the two classes—selfs or plain, and fancys—not doubting but that many equally as good are left out, and many perhaps better in other collections. The following may be planted, however, without the least disappointment:

Selfs or Plain—all of one Color.

King of Scarlets: brilliant, dazzling scarlet; large flower; good form.

Col. Windham: bright clear rose, tipped with deeper rose, or somewhat bronzy; quilled; exquisite form, and free bloomer.

Cerise Unique: bright cherry red; large flattish flower.

Lord Palmerston: deep scarlet crimson; large and showy; a well formed flower.

Lollipop: salmon buff; perfect shape, nearly two-thirds of a ball; free bloomer, and very constant.

Agness: pure white; best we have yet; large flower, and good shape, edges of the petals cut or serrated.

King of Yellows: clear bright sulphur yellow; flower large, and good form.

Pandora: deep claret purple; good size and form; best of this color, and very fine.

Surpriser: very dark, centre almost black, shaded off to deep crimson, sometimes slightly tipped white.

Annie: beautiful lilac; medium size; quilled; fine form; dwarfish habit, and most profuse and early bloomer.

Victory d'Atma: dark scarlet, large and perfect flower.

Queen of Roses: rosy lilac, satiny, large flower.

Fancy Varieties.

Glorie de Kaime: pure white, petals delicately edged with light crimson; perfect form; elegant and charming flower.

Baron Alderson: scarlet, with a pure white spot from the point towards the base of each petal; very showy.

Rubens: large and perfect flower, with buff, yellow and white on each petal; a splendid gem.

Mrs. Hanzard: bright yellow, petals tipped with white; an exquisite and beautiful flower.

Keepsake: richly striped with white down the centre of each brilliant purple petal; rather open flower.

Leader: deep lilac, striped with dark crimson; good.

Oliver Twist: yellow, striped with reddish violet, colors novel, but not perfect form.

Spot: white ground, striped with purple or crimson; good form.

Belle de St. Logerine: large flower, of a rich, deep purple crimson, base of petals white; a gem.

Calypso: white, shaded with lilac; large and handsome flower; very free bloomer.

Amazon: yellow, heavily edged with bright red; a very bright and showy flower.

Beauty of the Grove: yellowish buff, tipped with rosy pink; good form, and a fine flower.

CHRYSANTHEMUMS.

This noble fall flower may be taken up and put into a large pot or tub, after its blooms are expanded, if a little care is taken to retain as many of the fibres as possible: indeed, it easily retains a large mass of the roots and fibres, and if these are put into a pot or tub large enough to hold them entire, and watered well, the plant is enabled to stand the removal. Taken in, out of the reach of severe frosts, it will finish up its period of blooming, and reward its owner with flowers of different colors, for weeks after all other flowers have disappeared from the garden, and after its comrades, left out, are blackened with frost. Chrysanthemums seldom get half through blooming before they are cut off by frost, and their beauty well repays the little trouble of lifting them.

PRESERVING CABBAGES AND CELERY FOR WINTER USE.

There are various ways by which these vegetables may be preserved sound for winter use. If there are but a few of them, and cellar-room abundant, cabbages may be kept on the floor, placed heads downwards; while for celery, a large box or bin, in the cellar, will hold a winter's supply for a small family, if packed in layers of dryish sand; but it is chiefly to its preservation out of doors that we would direct attention.

With cabbages (while, of course, freezing and thawing, under certain conditions, will spoil them,) it is not from freezing that we have the most to apprehend; but from decay, caused by dampness and warmth, during the warm wet spells we often have in the winter. Dryness and aeration is the only thing that will save them. The main thing to be secured, then, is dryness; yet they must have some covering, and the best is, soil; there is no danger of their wilting with ever so slight a covering of soil—while too heavy a covering, may retain too much moisture around them, and by not allowing sufficient aeration, induce decay. It is of little consequence what plan is adopted, so as it secures the above conditions.

We have preserved them well by simply turning them head downwards into a small round hole where they grew; and are satisfied that a row set close together in that manner, and a furrow plowed up to the stalks on each side, covering the bottom leaves, will keep them as sound and perfect as the most elaborate plan.—Any other method we could recommend, would be but a modification of this—such, for instance, as placing a double row on the surface, with a row on top, and covering with the spade, by raising a conical ridge over a row or rows of any length. We think it is not advisable to put them into larger bulk than the last named, under any circumstances, on account of the fermentation and gases evolved in large bulks of green vegetable matter, causing rapid decomposition or decay. Three or four inches of soil is an ample covering, with the addition, perhaps, of a little coarse straw or litter of any sort.

Celery is more delicate and less patient of frost, and will bear but little freezing without injury, and dryness is even more essential to its preservation than to the cabbage; yet the principle of its preservation is the same as in that of all other vegetables, whether roots or leaves. To put it in the simplest form, we would say, bury it in any dry bank, where the water can run, or be conducted, off, and where the soil surrounding the celery cannot possibly become saturated, but will remain just moist, and no more. Cover the ridge with six inches of forest leaves, which will keep all frost out, and no difficulty will be experienced in preserving this delicious esculent through the longest winter—at least such has been our experience.

No farmer should rest satisfied without a supply of fruit trees, and fruit bearing plants, even if only enough to supply his own family wants.

[Reported for the Valley Farmer.]

Meramec Horticultural Society.

ALLENTON, Oct. 3d, 1861.

The thirty-fourth monthly meeting was held in the house of Mr. T. R. Allen. The President in the Chair.

The minutes of the former meeting were read, and approved of.

The Corresponding Secretary presented ten copies of the Patent Office Report on Agriculture, for 1860, which, with a few remaining copies of 1859, were distributed among the members.

The Executive Committee presented the following report on the recent Festival:

Our Exhibition on the 19th ultimo, was a success, notwithstanding the fears of many that it would prove a failure. We admit that it might have been, and ought to have been, much better. A little more thought, attention, and industry, on the part of many members, would have added greatly to this success. As it was, a few did very well, while the many did little or nothing.

Your Committee are indebted to the Superintendents of the several departments for complete lists of the articles exhibited in their departments, with the names of the exhibitors, together with such notes as to their merits as they deemed proper at the time.

The report of the Superintendent of the Fruit Department is most elaborate, as it was fitting it should be, as this department was greatly in the preponderance in the Exhibition.

The report of the Superintendent of the Flower Department is interesting, and had we not been admonished by the fear of making this report too voluminous, would have given it entire. We must be content, therefore, to make the following brief extract suffice:

After calling attention to the increased interest that is being taken in Floriculture, the Superintendent remarks—"The exhibitors, though fewer in number than last year, were all amateurs; and the number of varieties, and the fine condition of the specimens, indicates a truly healthy progress in this pleasing pursuit."

The report of the Superintendent of the Ornamental Department, is brief, necessarily, as his department was not well furnished. Honorable mention is made, however, of some fine paintings by Mrs. J. H. Morley and Miss L. E. Cowdrey, of Franklin county. Also, some beautiful specimens of Crochet Needlework, by Mrs. Dr. Beale and daughter.

The Superintendent of the Miscellaneous Department reports some fine samples of Wine and Bounce, made from the Lawton Blackberry, by J. S. Seymour.

The Superintendent of the Grain Department reports fine samples of the various grains. The number of varieties large for the number of exhibitors.

The Superintendent of the Vegetable Department complains that his department is not amply furnished, though the specimens on exhibition were mostly of fine quality.

The assembly of people, though not so large as customary on similar occasions heretofore, seemed to enjoy themselves highly, as well they might. The day was one of the finest; the luscious fruit and sparkling wine, were agreeable to the taste; the beautiful flowers and paintings were pleasing to the eye; the picnic dinner was superb and very abundant; the pleasant faces of the ladies were enchanting; and last, though not least, the spicy, piquant and appropo addresses by the President, Dr. L. D. Morse, Norman J. Colman, Esq. and Secretary Muir, were eloquent and entertaining.

Your Committee conclude by expressing their gratification at the harmonious working of the simple plan on which this Exhibition was gotten up, and recommend that our future exhibitions be held in the same way. It seems to combine all the advantages of the old premium plan, without the risk of the unpleasant consequences that frequently result from the premium

mode, besides adding that very important item—in these times especially—economy.

Respectfully submitted, T. R. ALLEN,
Chairman Executive Com.

On motion, the President appointed the following Committee to report to the next meeting, on "The varieties and quantities of Fruit proper for a Family Fruit Garden in this locality"—Mr. T. R. Allen, Dr. J. B. H. Beale, Mr. Rufus A. Lewis.

The Fruit Committee reported on the table:

APPLES—Fall Pippin, fine; Rambo, fair; Ortley, good; by T. R. Allen. Rhode Island Greening, Ortley, Pennock, Limber Twig, Fall Pippin, Rawles' Janet, all fine; by P. M. Brown. Wine Sap, Rawles' Janet, Pennock, and a seedling originated in the neighborhood named McKinlay; by R. A. Lewis.

PEACHES—Fine Samples of Heath Cling, raised from seed; by R. A. Lewis.

QUINCE—Good specimens of the Apple or Orange, by P. M. Brown. Jno. S. SEYMOUR, Ch.

The Flower Committee find specimens of Tassel Flower, eight varieties of Zinnia, eight varieties of Chinese Pink, four Verbenas, four Tea Roses, four Tagetes, Chrysanthemum, and Polargonium; by Mrs. J. S. Seymour. Wm. Muir, Ch.

Adjourned for dinner.

The Afternoon Session was opened by "The Consideration of the Fruits on the Table."

Mr. P. M. Brown finds the White Bellflower or Ortley a good and regular bearer. Keeps till Christmas without any care. Trees planted in 1850. Fruit not subject to disease; but finds many slightly moldy at the core. Limber Twig a good, regular bearer; keeps till April. Wine Sap heaviest bearer of any in my collection.

Mr. R. A. Lewis thinks much of the Fall Pippin.—Finds the Wine Sap very good; a fine keeper and bearer. The McKinlay is a good apple, regular bearer, and keeps well till Christmas. Was raised from the seed, by my grandmother, Mrs. Judge Bowles, and at that time was very much admired. Was obtained by Mr. Sigerson from a person named McKinlay, and propagated under this name. The trees which produced the fruit here, were obtained from Mr. Sigerson.

Some years since, a brother of mine got a bushel of fine early Freestone Peaches in Hermann; he gave me forty seeds, which I planted by themselves; thirty-nine grew; fifteen of these were freestones—the rest clings; two clings, much alike, ripened the 15th of August; most of the rest were ripe last week; some of the free peaches were white, large, and fine—the rest small, and two were red cheeked, like the original.—Of the thirty-nine trees, the peaches of fifteen to twenty, are as large as this sample [a large Heath Cling], and one tree, a fine soft peach, much like the original, and ripens aearly. Two of the trees were planted in an old ash-pit, and are twice as large as the others.

Mr. T. R. Allen submitted two apples purchased in the same lot for Rambo, and asked if they were the same? All agreed as to their identity, the difference being traceable to one being grown near a fence by which grew some Locust trees, which shaded the tree.

Dr. McPherson asked the best time for gathering and mode of keeping winter apples.

President thinks the fruit should hang on the tree as long as vegetation is active, or till danger of severe frost. Gather by hand, and carefully avoid the slightest bruise. Put them in a cool, dry place, in piles three or four deep for two weeks; assort carefully, and wrap in paper like oranges, and place them in a place where an equal and moderate temperature can be maintained. It was also important to keep each variety by itself, and mark them distinctly, as much injury might result from their ripening at different times in the same lot or barrel. Thinks white soft paper best.

Mr. Kittredge has known them keep in charcoal very well; may sometimes need wiping off before offering for sale; thinks laying on shelves in low tiers,

better than packing at once into barrels. Had had them in barrels, and they began to decay, and took them out, wiped, and laid them on shelves, and they kept well during the remainder of the season.

Mr. Votaw thinks that it will be too tedious in extensive orchard culture, to put up in paper. Thinks the apple is generally picked too late; and thinks in a common root house they will do well; if kept too dry, they shrivel, but in a cool, moderately moist place, they will come out in the spring fair and plump.

President thinks it important to keep the stem on.

Mr. Seymour thinks late winter apples will be found in best condition to gather about the 20th of Oct.

The President announced the next meeting to be held at Eureka School House, on the first Thursday in November, at 10 A. M.

Meeting adjourned.

WM. MUIR, Sec.

[Written for the Valley Farmer.]

SWEET HARD SHELL ALMOND.

As but few people, comparatively, know that the Almond can be grown here, and might even be made a profitable market fruit, a few facts in regard to it, may serve to disseminate it more, and I will therefore give your readers my experience with it.

This variety (the Sweet Hard Shell) will thrive and fruit wherever the Peach will: nay, I think it even more hardy.

I set out two young trees, three years ago, and last year they produced some fruit; but this season they were loaded down with it, producing over half a bushel of nice fruit, which my children relished exceedingly.

They have a hard shell, but the kernel is very good; in my opinion as good as that of the Soft Shell Almond, which is sold in our markets.

They are planted and cultivated like peach trees, which they closely resemble, and will produce fruit even earlier than the peach. Every farmer ought to plant a few trees, if it is only to please the little ones, who delight in cracking them in the winter.

GEORGE HUSMANN.

The Dewberry, or Trailing Blackberry.

ED. VALLEY FARMER: Through you, I desire to say to Pomona, (who inquired respecting this fruit in the August number of the *Valley Farmer*,) that I have tried to cultivate the Dewberry for several years; and the more I cultivate, the less fruit I get. It seems that the wildness of nature is required to develop its qualities.

I have picked up the finest plants, and those having the best berries for a long time, and tried their growth on the bare hillside and the rich bottom; have trained them on dry rocks and low trellis; and whenever they were removed from the moisture of the earth, they mildewed, lost their foliage, and did not ripen their

fruit; and the little they did ripen, was bitter and imperfect. It is true, I have had some fine fruit, but it was rather the result of the want of cultivation, than of their being cultivated. As a crop, I have had no success.

As it is facts, and not suppositions, that Pomona wants, I cannot help him; but from the careful experience of some years, I have decided to try the cultivation of the Dewberry in the same manner as the Strawberry, upon light, warm, upland soil, and attend to the pinching in of the runners.

It is easy to get strong, healthy growth, and plenty of wood; it is easy to get good fruit, but little of it: and till the cultivation can be reduced to a system, and yield a fair return in fruit, nothing has been done.

Hoping that attention will be directed to this channel of improved culture,

I am yours truly, WM. MUIR,

St. Louis County, Mo.

[Written for the Valley Farmer.]

Calendar of Operations in the Vineyard.

BY GEORGE HUSMANN.
NOVEMBER.

This is the month to prepare your vineyard for the winter. Cut the vines loose from the trellis; protect tender varieties, by pruning, and bending down the canes, covering them with earth, either with spade or plow. Plow up to your vines, throwing the earth well around them, and cover all dead leaves, &c. You can also prune your vines; it will not hurt them as much as late spring pruning. Cut the young wood of the varieties you want to propagate, into cuttings about fifteen inches long; tie them into bundles; dig a hole in a dry place, about eighteen inches deep; set your bundles of cuttings with the ends downward, into it, and cover the tops with earth. This will keep them fresh, and they will root readily if put out early in the spring. Give your old vineyards a top dressing of earth, and trench or plow for next spring's planting. Take up your layers; be careful to get all the roots you can to them; leave about a foot of well-ripened wood on them above the roots, and cut them apart at each joint, if they have sufficient roots. Puddle the roots well, by dipping them into a thick puddle, made of water and well pulverized earth; then heel them in, in a slanting position; pulverize the soil well you throw upon the roots, and cover the tops up to the last bud.

Look to your new made wine, bunging it up tight as soon as it has ceased working.



[Written for the Valley Farmer.]
REARING OF CHILDREN.

TUITION IN THE CRADLE.

Train up a child in the way he should go; and when he is old, he will not depart from it.—[PROV. CH. 22.]

How few parents are there, even in this enlightened day, who, when a child is given into their hands, can answer the momentous question: "How shall I train up this child in the way he should go?" and how many children of the wisest and best of parents go astray as soon as they are left in the smallest degree to self guidance, or, I might say, as soon as they act at all.

It is a sad thought that even a single child at this time, especially in our own country, where the Bible and religion are so widely spread, should depart from the path of rectitude, after all the careful training received from fond parents at home, and the moral and intellectual culture in the schools at a maturer age. But, that even the majority of the children of men do so depart and go astray, is a truth that meets us everywhere we turn.

But, why is this so? why are the fondest hopes of parents so often doomed to bitter disappointment? The cause seems to be hidden.—Is it the result of unseen accident? is there a destiny that impels the heart to evil "as the sparks fly upward?" or is the natural depravity of the heart so deep, in many cases, as to bid defiance to all the means made use of to subdue it? That the heart of man is depraved and "desperately wicked," both the sacred writings and our daily experience abundantly testify: but of the *young child* it is said, "of such is the Kingdom of Heaven." Why, then, is the heart of the child so prone to evil, rather than good? Let us inquire.

Allow me, at the risk of startling the well-meaning parent, to endeavor to unfold the mystery as it presents itself to me; premising that I shall not offer a gratuitous proposition, nor yet a new theory in family government; but

will give the result of much experience, and the analysis of well studied facts.

All parents appear to suppose that a child in its early days is but merely a vegetating existence. In this lies a fatal mistake. Even in the cradle is its education begun; and at no period of life, perhaps, is its progress greater than in the first few months of its existence. There, unnoticed, and without a conscious instructor to direct the bias of its nature, it lies and imbibes every influence presented to its watchful, inquiring mind, retaining the evil that it must and the good that it may.

Any child of ordinary capacity, long before it can articulate a word, can, by a little assiduity, be taught to place its finger, at request, upon any feature of its face, and to point out unerringly the different members of its body.—If, then, the child is susceptible of acquiring such knowledge thus early in its life, is it not also capable of receiving, by proper training, impressions suited to the healthful development and improvement of its moral nature? Those who dissent from this proposition need but to make a wise and careful trial to be convinced that such is the truth. We have all seen the child of a month old exhibit unmistakable signs of ill-nature; and the fond mother, perhaps, smiled at the precocity of her little one, not surmising that this little gust of premature passion might be the dawning of that waywardness that in after years was to bring sorrow to her heart.

Who can say that the mind of a child, at the dawn of its existence, is not a perfect blank, devoid of every mark of character or disposition; and that the first impressions received upon its soul are not fixed there forever, be they good or evil? Abundant facts can be adduced in favor of such a conclusion.

True, we often hear it remarked of a child—"He takes after his father," or, "He has his mother's disposition." Without doubt, this is often true. But did the child *inherit* it? or was its peculiar temper the result of impressions received from its parent in the exhibition of like traits in its presence? That a child may inherit from either of its parents a certain aptness to receive impressions of whatever nature they may be, we need not doubt: but the tuition that it receives during the first few months of its inert, but watchful, existence, by the unconscious tutors around, is sufficient to account for every trait of character that impels that spirit to acts of virtue or vice in after years.

What mother has not seen her young child

watch with earnest attention her features, reading her emotions in the glance of her eye; smile when she smiles, and put on a sad or anxious look when she shows displeasure or grief? Even persons in advanced years, who are much in each other's society, are known to acquire from sympathy a disposition more and more alike. Surely, then, since this is true, it would not be surprising to find that the disposition of the child should approach in its nature that of its mother or nurse on whose care it lives.

With what watchfulness, then, should the mother guard her every look toward her child, if the smile upon her face, beaming from the emotions of love and benevolence in her heart, be a power to form the character of her child for like benevolence and love! And with what prayerful solicitude should she watch the evil that may be in her nature if the exhibition of it before her offspring must act as powerfully upon it for evil.

Much more might be said in support of the position assumed, but let this for the present suffice.

The parent may be ready to exclaim, "Who is sufficient for these requirements?" The question may indeed well be asked. In our attempts to begin thus early the training of our child, we shall find many difficulties to overcome. However anxious we may be that it shall imbibe no evil into its nature, it sometimes becomes necessary that we should intrust it in other hands than our own; and this, too often, to those who feel but little interest in its welfare. Beside, we really lack that which we would supply to our child, for the good reason that it was never supplied to us. We shall find it a hard task to master the infirmities of our own nature.—But let us make a beginning and do what we can. Every step in the right direction is a real gain; and if we fail to form the character of the child fully up to the standard toward which we look, we shall at least experience the satisfaction of having attempted, and in some measure perhaps attained to the reform of ourselves in the desire to benefit our offspring. B.

FEMALE INFLUENCE.—A married man falling into misfortune; is more apt to retrieve his situation in the world than a single one, chiefly because his spirits are soothed and retrieved by domestic endearments, and his self respect kept alive by finding that although all abroad be darkness and humiliation, yet there is a little world of love at home over which he is a monarch.

NEIGHBOR NELLY.

I'm in love with neighbor Nelly,
Though I know she's only ten,
While I am eight-and-forty,
And the marriedest of men.
I've a wife that weighs me double;
I've three daughters, all with beaux;
I've a son with noble whiskers,
Who at me turns up his nose.

Though a square-toes and a buffer,
Yet I've sunshine in my heart;
Still I'm fond of cakes and marbles—
Can appreciate a tart.
I can love my neighbor Nelly
Just as though I were a boy,
And would hand her cakes and apples
From my depths of corduroy.

She is tall, and growing taller;
She is vigorous of limb;
(You should see her play at cricket
With her little brother Jim!)
She has eyes as blue as damsons,
She has pounds of auburn curls;
She regrets the game of leap-frog
Is prohibited to girls.

I adore my neighbor Nelly;
I invite her into tea;
And I let her nurse the baby,
Her delightful ways to see.
Such a darling bud of woman!
Yet remote from any teens:—
I have learned from neighbor Nelly
What the girl's doll-instinct means.

Oh, to see her with the baby!
(He adores her more than I;)
How she chorusses his crowing!
How she hushes every cry!
How she loves to pit the dimples
With her light forefinger, deep!
How she boasts like one in triumph,
When she gets him off to sleep!

We must part, my neighbor Nelly;
For the summers quickly flee;
And the middle-aged admirer
Must, too soon, supplanted be.
Yet, as jealous as a mother—
A suspicious, cankered churl—
I look vainly for the setting
To be worthy such a pearl.

HOUSEHOLD WORDS.

OLE BULL.

At five years old his uncle bought him a very small violin, as yellow as a lemon. He says he never felt carried up into the third heaven, as he did when his own little hand first brought out a tune from that yellow violin. He loved it, and kissed it; it seemed to him so beautiful, that little yellow violin! To the surprise of the family, he immediately played well upon it, though he had received no instruction. He had always been present at the family concerts, and he observed everything and remembered everything. On his little yellow violin, he played a quartette of Pleyel's to the assembled Club, and they inquired with astonishment who had taught the child; for they knew not that

God had taught him, by a process as simple as that of the mocking bird.

When he was eight years old, a Frenchman arrived in Bergen with violins for sale. One of them, bright red in color, gained the boy's heart at first sight, and he pleaded with his father till his father consented to buy it. It was purchased late in the afternoon, and put away in its case. Ole slept in a small bed in the same apartment with his parents, and the much-coveted instrument was in the adjoining room. "I could not sleep," said he, "for thinking of my new violin. When I heard father and mother breathing deep, I rose softly, and lighted a candle, and in my night-clothes did go in, tip-toe, to open the case and take one little peep. The violin was so red, and the pretty pearl screws did smile at me so! I pinched the strings, just a little with my fingers. It smiled at me, ever more and more. I took up the bow and looked at it. It said to me it would be pleasant to try it across the strings.—So I did try it, just a very, very little; and it did sing to me so sweetly! Then I did creep farther away from the bed-room. At first I did play very soft. I make very, very little noise. But presently I did begin a capriccio, which I like very much; and it did go ever louder and louder; and I forgot that it was midnight, and that everybody was asleep. Presently I hear something go crack! and the next minute I feel my father's whip across my shoulders. My little red violin dropped on the floor, and was broken. I weep much for it, but it did no good. They did have a doctor to it next day, but it never recovered its health." Mrs. CHILD.

[Written for the Valley Farmer.]

FACTS AND FANCIES.

BRUTE INSTINCT.—There is no doubt birds have a language by which they understand each other: and why not the whole brute creation? The hen gives the sign of caution when danger is near; and her brood, though just escaped from the shell, will instinctively hide. Her call when she has food, is never mistaken by her chickens, who start at once from all points of the compass. And this language is stereotyped: it admits of no improvement—it is perfect. Could we understand it, there is doubtless a meaning in every note of a bird's song. And in the great variety of birds, what meaning there must be. Can this ever be learned by intelligent man?

RAIN.—Rain is a beautiful phenomenon. We all have our childhood's fancies about it, of the

pattering drops, &c. But the true part about it is none the less interesting, namely, that each drop is a globe, as round as it can be—a multitude of large or small balls coursing through the air. Some so minute they can hardly be seen; but all spheres, coming from the direction of the great spheres. And there is harmony and peace among the drops. For though a storm affects us by its shock, the drops, like a balloon, are carried along in perfect quiet, no jostling, no noise.

A HERO.—The man who can always repress his anger, has obtained a victory, the importance of which is but little understood, even by himself. He has a shield which is secure against the deadliest shaft, spite and hate, whose ensign is the cross-bones and skull—for the ultimate of anger is murder. The importance then of controlling this passion! which, alas! is so little done. To render good for evil, is the central doctrine of Christianity. It makes quiet heroes—all the more formidable for being quiet. It is such heroes that heap coals of fire on their enemies' heads, not by any effort of their own save that of keeping quiet—or, if they act, do as the sun does when he looks from behind a cloud—sheds forth friendly beams. F. G.

A RURAL PICTURE.

Warm noon brims full the valley's cup,
The aspen leaves are scarce astir,
Only the little mill sends up
Its busy never-ceasing burr.

Climbing the loose-piled wall that hems
The road along the mill-pond's brink,
From 'neath the arching barberry stems
My footstep scares the sky chewink.

Beneath a bony buttonwood
The mill's red door swings open wide;
The whitened miller, dust embued,
Flits past the square of dark inside.

No mountain torrent's strength is here.
Sweet Beaver, child of forest still,
Heaps its small pitcher to the ear,
And gently waits the miller's will.

Swift slips Undine along the race,
Unheard, and then, with flashing bound,
Flods the dull wheel with light and grace;
And, laughing, hunts the loth drudge round.

The miller dreams not at what cost
The quivering mill-stones hum and whirl,
Nor how, for every turn, are tossed
Armfuls of diamond and pearl. LOWELL.

This description is unsurpassed: the quiet of a summer's landscape is fully reproduced.

Practice what you preach, or your preaching is worse than a lie.

The man who lives for himself alone, lives for a mean fellow.

Humorous Clippings.

"A little nonsense, now and then,
Is relished by the best of men."

"I wonder what makes my eyes so weak?" said a fop to a gentleman. "You needn't wonder—they are in a weak place," replied the gentleman.

Milton was asked by a friend whether he would instruct his daughter in the different languages. His reply was: No, sir; one tongue is enough for a woman."

"How is it," said one little miss to another, "that John's never afraid, and I am?" "Because he's got a Roman nose, and feels safe; don't you remember how we read, that it has always been said that a Roman *knows*—no danger?"

A gentleman wishing to get rid of an unwelcome visitor, and not liking to tell him, "there's the door," qualified it thus: "Elevate your golgotha to the summit of your pericranium, and allow me to present to your ocular demonstration the scientific piece of mechanism which forms the egress portion of this apartment."

"Look hear, Dixey, you knows a thing or two. Doesn't you think, from de cloudification of the atmosphere, dat we'll have rain to day?"

"Well, I declare, Sanford, I doesn't zactly understand astronometry, but I does think it looks very omnibus."

"Dat's jest dis chile's 'pinion, but I didn't hab de larnology to 'spress it. Ise nebber studied skyology."

An eminent lawyer, in Glasgow, once had a client whose name was Widow Tickle. He rose, and commenced to address the Honorable Court in this manner: "Tickle, my client, my Lord," and paused a moment. The judge, who was considered a wag, broke in after this most ludicrous style: "Ye maun tickle her yersel, Mr. McLaughlin; its no the business of this Court to tickle your client, my bra' mon."

The post-office in E—, was kept in the bar-room of the tavern, a great resort for loungers. An old chap, more remarkable for his coarseness and infidelity than for his good manners, was sitting there one day with a lot of boon companions, when the Methodist minister, a new comer, entered and asked for his letters.

Old Swipes spoke up bluntly:

"Are you the Methodist parson just come here to preach?"

"I am," pleasantly replied the minister.

"Well," said Swipes, "will you tell me how old the devil is."

"Keep your own family record?" quickly returned the preacher, and left the house amid the roars of the company.

A man who assisted to empty several bottles of wine, afterwards took a walk. The pavements were quite icy, and he exclaimed: Very singular; wh-whenver water freezes, it always freezes with the sl-slippery side up."

A breeder of fowls says one of his Cochins, when eating corn, takes one *peck* at a time.

Ladies who have a disposition to punish their husbands, should recollect that a little warm sunshine will melt an icicle much sooner than a regular north-easter.

A German being required to give a receipt in full, after much mental effort produced the following: "I ish full. I wants no more money. John Swackhammer."

A correspondent offers his services as a letter writer, and warrants his epistles to "start a parent's tear, stir the expiring embers of waning affection, and awaken the full ecstasy of a lover's heart."

When Sir Thomas Parkes was pleading against Dr. Sacheverell, the doctor said to him, "I shall pray God to forgive you." "And while your hand is in," said Sir Thomas, "remember yourself, good doctor!"

An apprentice boy who had been misbehaving, one day came in for a chastisement, during which his master exclaimed, "How long will you serve the devil?" The boy replied, "you know best, sir; I believe my indentures will be out in three months."

A country couple, newly married, stopped at a hotel at Brighton, England, recently, and the groom called for some wine. When asked what kind he would have, he replied, "We want that kind of wine where the cork pops out, and the liquor boils up like soapsuds."

A ragged little urchin came to a lady's door, asking for old clothes. She brought him a vest and a pair of pants, which she thought would be a comfortable fit. The young scapegrace took the garments, and examined each; then, with a disconsolate look, said, "There aint no watch pocket."

In England, in 1358, it was enacted, that "no lady or knight's wife should have more than one velvet or damask gown for the summer; that all ladies should wear russet or camlet three days in the week, under penalty of ten shillings per day; and that a surveyor should examine the ladies' wardrobes." Just fancy such a surveyor in these days!

George the First, on a visit to Hanover, stopped at a village in Holland, and while the horses were getting ready, he asked for two or three eggs, which were brought him, and charged two hundred florins. "How is this?" said his majesty, "eggs must be very scarce in this place." "Pardon me," said the host; "eggs are plenty enough; but kings are scarce." The king smiled, and ordered the money to be paid him.

"Boy, didn't you let off that gun?" exclaimed an excited schoolmaster.

"Yes, master."

"Well, what do you think I will do to you."

"Why, let me off."

Domestic Department.

BROWN BREAD.—One quart rye meal, two quarts Indian meal, two tablespoonsful of molasses; mix thoroughly with sweet milk; let it stand one hour, then bake in a slow oven.

WHITE BREAD.—One spoonful of hop yeast, two potatoes boiled, one pint of water, and make a sponge; and when light, or sufficiently raised, mix hard and let rise; and when it is light again, I mold it over and bake when light.

POTATO CRUST.—Take nicely mealed boiled potatoes, mash them very fine, put a teaspoonful of thick cream, salted properly, to six or seven good sized potatoes, and flour enough to roll out. This is good for pot pie or meat pies.

CALVES' FEET BLANC MANGE.—Boil four feet in five quarts of water, without any salt. When the liquor is reduced to one quart, strain it, and mix with one quart of milk, and add several sticks of cinnamon or vanilla bean. Boil the whole ten minutes and sweeten it to the taste with white sugar; strain it, and fill your molds with it.

GRAHAM BREAD.—Take two quarts Graham flour (ground wheat), three pints lukewarm water, one cup of yeast, one cup of molasses, one teaspoonful of salt. Stir, not knead, in a pan, and let it stand until it rises—then bake.

SOFT TOMMY.—One pint of sour milk, one teaspoonful of saleratus, heaping tablespoonful of salt, tablespoonful of lard. Stir in flour until the mass is as stiff as you can stir it with a strong iron spoon. In to the pan and oven with it, and bake till done as you would any other bread. Soft Tommy is good for tea twice a week when one is in a hurry.

A domestic receipt for extracting ink spots from colored articles of linen, wool, and similar fabric, is simply to rinse the part so stained in fresh milk, changing the milk as often as necessary, until the stain disappears. As a finale, wash out the milk in pure rain water.

DYING IN PAINT.—There is a liquid called Japan, which is used for drying in paints—can be purchased for \$1, or \$1.25, per gallon. Two teaspoons of good Japan is sufficient for a pint of paint. Use in proportion to your amount of paint. My motto is, pay well for a good article—there are inferior kinds of Japan—get the best. This should not be used in white paints; for, being dark liquid, it would injure its pureness; but for all paints that are colored, it is superb. A person may paint her floor after tea, and it will be perfectly dry by breakfast time, if she have a good article of Japan for the dryer. Any lady may paint a moderate sized kitchen after tea herself.

A BEAUTIFUL DYE.—Gather the faded leaves of the dark meroon colored hollyhock, single or double flowers; place a large handful in about a quart of water, with a piece of alum about the size of a filbert; let it simmer down to about the quantity; dip ribbons, cashmere, woolsens, or silks, into the liquid, and you will obtain the fashionable and elegant tint called "mauve." Ribbons should be wrapped in a piece of white calico or linen, so as to dry gradually and evenly. The shade of color may be lessened by adding water, if the tint should be considered too high.

MOTHS IN CARPETS.—Camphor, two ounces, well cut, to a quart of whisky—a hot flat iron to pass over a piece of muslin with this solution and thin enough to allow the steam produced by the hot iron to penetrate through the carpet. Carpets that are taken up en-

tirely spring and fall, are more free from the work of this insect; but this remedy is practical in all cases—perhaps more particularly where a velvet tapestry carpet is put down by a patent machine, and is so heavy as cannot be easily taken up. This hot flat-iron should be applied wherever there is evidence of the worm eating.

POT PIES.—Make a crust like soda biscuit, i.e., take one quart of flour, half a pint of milk, butter size of an egg, two teaspoonsful of cream of tartar in the flour, one teaspoonful of soda in the milk. Mix well together, and drop into your chicken, or veal, or beef stew, when the stew is boiling. I will warrant you light crust. A better way to cook it is to cut into biscuits, lay on a large plate, and set it in the steamer, over the stew to cook. Lay on the platter with your meat, and pour over the seasoned and thickened gravy, and you have something a little better than common.

PUMPKIN PRESERVES.—An excellent and economical sweetmeat is thus prepared. To 7 lbs. of pumpkin, take 5 lbs. of sugar, 4 lemons, and 2 ozs. of green ginger root, to be obtained at most grocer's stores. Cut the pumpkin in slices, half an inch in thickness, and in size and form to suit the fancy. Boil the pumpkin in the syrup until tender; then remove it, and add the lemons and ginger root. These should be sliced thinly and scalded before being put into the syrup. Boil it down until it is rich enough to keep without fermenting, and then pour it over the pumpkin. If the ginger root cannot be obtained, lemons alone impart to it an agreeable flavor.

READY-MADE YEAST.—Boil a handful of hops in 2 quarts of water, and add 4 large potatoes boiled, mashed, and strained. Scald 6 tablespoonsful of flour in the liquid, adding 1 cup of sugar and 1 cup of salt. When cold, add yeast to ferment it, thinning the liquid to 2½ quarts. This put in well-corked bottles, will keep six weeks in the hottest weather. Use half a teaspoonful for each loaf of bread.

SOAP FOR HARD TIMES.—Cut 1½ lbs. of common bar soap into thin pieces, and boil fifteen minutes in a pail of soft water with 1 lb. of sal soda. Pour the whole into a barrel, and fill two-thirds full with water.

GREASE SPOTS.—The following is from the "Agriculturist": Many of these eyesores may be removed for a sixpence invested in French Chalk. Susanne, of Brooklyn, gives as an example, that her four-year-old carried a nice edition of Cowper into the kitchen and dabbed it into the butter plate. She scraped some of the French Chalk over the spots of grease, and in an hour afterward brushed off the powder, and put on a fresh dose, leaving it three or four hours, when Cowper was himself again. "The same application operates equally well upon greased clothing, though, sometimes, two or three applications may be needed. The French Chalk (clay) can be obtained at any drug store."

CURD PIE.—Take 1 pint of curd made from milk just drawn; strain well from the whey, and beat it fine; add 1 pint of new milk sweetened to the taste, and 3 or 5 eggs well beaten. Mix the whole well together; bake with an under crust, the same as custard pie, in pie pans, about an inch deep.

ROLY-POLY PUDDING.—Take 1 lb of flour, a little over a ¼ lb. of beef or mutton suet, chopped tolerably fine, or an equivalent of butter. Mix well together, and make into dough with water. Work it smooth, and roll to ¼ inch in thickness; then spread on about ½ inch of any kind of preserves and roll it up, closing the ends well. Sew it tightly in a cloth, and boil it 2½ hours. To be eaten warm with cream.

Butter and sugar, thickened with corn starch, and flavored with the rind and part of the juice of a lemon, makes a good sauce.

Editor's Table.

The Press.

We acknowledge our great indebtedness to the Press for the prosperity that has attended our Journal. We doubt if any similar periodical has ever received so warm and hearty recommendations from all parts of the Great Valley of the Mississippi. By the influence of these favorable notices the "Valley Farmer" family has grown and expanded weekly and monthly till its members are now found in almost every town and county of the Great West. We feel profoundly thankful for the kindness that has ever been extended to our efforts.

We would be pleased to have our brethren of the Press inform the great public that we are preparing our Vessel, called the VALLEY FARMER, for the voyage of 1862, and that any one wishing to take passage, can do so at once, and no extra charge for the ensuing month for this year will be made. Terms, only ONE DOLLAR per annum: clubs of four for 75 cents each. An old or new subscriber sending two NEW SUBSCRIBERS and Two Dollars, shall have the third copy FREE for the year. This is a reduction of terms on account of the hard times, and will hardly pay for the paper and press work.

The Patent Office Report for 1860.

The Report from the Agricultural Division of the Patent Office, for the past year, is an improvement in many respects, certainly, on its predecessors. Being printed in smaller type, it contains much more matter, and the subjects are well chosen. The smallness of the type, however, is really an objection. It appears to have been dictated by the House of Representatives. We object, also, to the almost obsolete method of spelling "plough," as followed in this volume.

The Superintendent, Hon. Thos. G. Clemson, in his "Preliminary Remarks," shows that he appreciates the importance of the Division. He alludes to the dissatisfaction of a vast majority of the intelligent agriculturists of the country with the limited functions now exercised by the Government, and the demand for an organization at least equal in importance to that of any other department. He says, "No object is more worthy of governmental care; nor is there any field of action in which the satisfactory realization of progress in population, wealth, and civilization can be so certainly attained." He reviews briefly the provisions made by several European countries for the promotion of agriculture, and shows the meagreness of our own in comparison. His deductions and suggestions by way of improvement are excellent.

We have only space to allude briefly to one or two of the important papers in this volume.

"NOTES ON THE RECENT PROGRESS OF AGRICULTURAL SCIENCE," is a new feature, and a most interesting and valuable one. It is compiled, as the author says, from various publications, American and foreign, showing the recent progress in agricultural science, both as regards facts and opinions. We have often

wished for something of the kind. Medicine, Law, Commerce, and other departments of science or art, have their Reviews, Abstracts, Digests, &c., and why not Agriculture? It is to be hoped that the idea so well begun in this volume, will be followed up and enlarged as circumstances will admit, until we shall have a Review, Digest, or Annals of Agriculture, issued monthly, quarterly, or semi-annually by the Superintendent of Agricultural Affairs.

There are excellent chapters on "FERTILIZERS," "IRRIGATION," "BEE CULTURE," &c. Wine Making and Grape Culture, have received a merited share of attention, and are treated of at considerable length.

"THE FOREST TREES OF NORTHERN AMERICA, AS CONNECTED WITH CLIMATE AND AGRICULTURE," by J. G. Cooper, M.D., of Hoboken, New Jersey, is an able and original article—one of the very best that has ever honored a Patent Office Report. We could only wish that the subject was handled more in extenso and minutely. It is accompanied by a map, showing tolerably well, for the small space it occupies, the distribution of American Forest Trees.

On the whole, the volume before us affords promise of future progress in the department of agriculture.

ONLY ONE MORE NUMBER.

One more number—the December—closes the present Volume—the Thirtieth. We hope our subscribers will bear this in mind, and begin to form Clubs for the next Volume. None need to entertain fears, that the "Valley Farmer" will be discontinued. It has been published too long; has too large a circulation, and too many warm friends to aid it, for any such fate to befall it. We expect to lose some subscribers till our national difficulties are settled—still, we think that those who are engaged in agricultural pursuits, even during these times, will feel satisfied that they will derive enough benefit to pay the trifling amount of subscription asked for it. We think that farming will be much more remunerative next year than it has been this. Indeed, such a vast body of men taken from the farm, as has been, to make up both armies, must raise the price of farm produce.—Our advice to all parties, is to stick to the farm. Sow and plant as usual; bestow as good or better cultivation than heretofore; and patiently bide the time for the restoration of peace and prosperity. In the mean time do not neglect your agricultural papers, but keep up with the times.

We have heretofore sent the January number of the New Volume to the most of our subscribers whose time expired with the December number. This has created a good deal of confusion in mailing, and hereafter we shall not send that, or any other number, to any subscriber whose time has expired. We wish to state this distinctly now, so that subscribers, whose subscriptions expire with the December number, need not look for the January number. We ask one and all who have thus far approved our course, to stand by us in these gloomy times, and to aid us all they can consistently in making up clubs for our paper.

Apple Butter—How to Make.

ED. VALLEY FARMER: Do you like good apple butter? Who, that is sensible, does not? Yet a good deal that I have seen and eaten, is not good. In these hard times we can't afford to buy much; and every luxury that we can make from the produce of our farms, we ought to make. Besides, fruit is so healthful. Oh! that all people would plant trees and vines, and have always an abundant supply of fruit—but I am forgetting the apple butter. First, you want good cider. To have that you must have good sound apples to make it. As soon as from the press, or before it begins to ferment, boil it, being careful to skim it thoroughly. Reduce your cider to one-third or one-fourth the original quantity, by boiling. Pare, core, and quarter good apples. If you have quinces to use, mix with the quinces, and add them to the apples. Boil these in the cider till done—and you have a sauce fit for a farmer's family or a king's. Some people prefer to have them cooked carefully, so as to have the quarters left whole. But if one prefers it, the apples and cider should be stirred thoroughly, and the whole made into a jelly, so the cider will not run from the apples. My "better half" having just made a nice batch, which I find a great addition to the luxuries of the table, and not knowing that all your readers know how to make it, I have sent you the method we adopt.

Your friend, a "Valley Farmer."

CONTENTS OF NO. 11.

Agricultural.

| | |
|--|-----|
| Hints for the Month, - - - | 321 |
| Lime on Soils, - - - | 322 |
| Philosophy for Farmers, - - | 324 |
| Hog Killing—Hints to Housewives, - | 325 |
| Fresh Eggs the Year Round, - - | 327 |
| How to Cure Hams; Fall Barley; A Perfect Rat Driver, - - - | 328 |
| A Farm Cottage, - - - | 329 |
| Rotation of Crops, - - - | 330 |

Stock Department.

| | |
|---|-----|
| Fattening Hogs; Why Horses Kick, - | 332 |
| Muscle vs. Fat; Cure for Thumps in Hogs, - | 333 |
| Shelter for Sheep; Will the Ewe Breed Twice in One Year? Live Cattle Weighed by Measure; Trotting Horses Too Young; Milk Fever in Cows After Calving, - - - | 334 |
| Why Sows Destroy Their Young; Cramp or Spasm in Horses, - - - | 335 |
| Remedy for Blind Staggers; How to Make Whey Oil; Huffy Cheese; The Alpaca, or Peruvian Sheep, - - - | 336 |

Horticultural.

| | |
|--|-----|
| Pruning Fruit Trees, - - - | 337 |
| Look to Your Gardens, - - - | 339 |
| The Vine—Producing New Varieties from the Seed, - - - | 340 |
| Monthly Notes for the Garden and Orchard, - | 341 |
| Meramec Horticultural Society, - - - | 343 |
| Sweet Hard Shell Almond; The Dewberry, or Trailing Blackberry, - - - | 344 |
| Calendar of Operations in the Vineyard, - - - | 344 |

Home Circle.

| | |
|---|-----|
| Rearing of Children, - - - | 345 |
| Neighbor Nelly (Poetry); Ole Bull, Facts and Fancies; A Rural Picture (Poetry), - - - | 346 |
| Humorous Clippings, - - - | 348 |
| Domestic Receipts, - - - | 349 |

Editor's Table.

| | |
|--------------------------------------|-----|
| Patent Office Report for 1860, - - - | 350 |
| How to Make Apple Butter, - - - | 351 |



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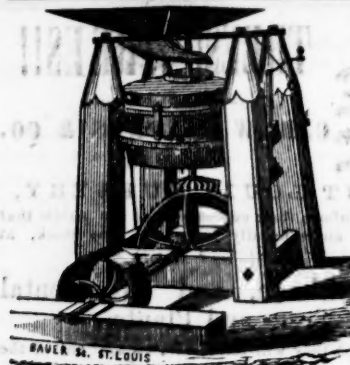
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